

DECEMBER, 1944

VOL. 43, NO. 12



H. S. WEBSTER, JR.
Vice-President and General Manager

CHARLES DOWNES
Editor

GEORGE POST
Assistant Manager

o o o

Editorial Staff

Legal Editor, Leo T. Parker
Materials Handling Editor, Matthew W. Potts
Air Cargo Editor, John H. Frederick
Staff Correspondent, Carleton Cleveland
Traffic Consultant, Henry G. Ewell
International Trade Consultant,
George F. Bauer

o o o

Advertising Staff

A. H. Ringwalt, Central Western Manager
310 North Michigan Ave., Chicago 1, Ill.
Franklin 0829
Don F. Harner, Western Representative,
1595 Pacific Ave., Long Beach 6, Calif.
D. P. Macpherson, Special Representative,
700 So. Washington Sq., Philadelphia 6, Pa.

o o o

A Chilton Publication

Published Monthly by

DISTRIBUTION and WAREHOUSING
PUBLICATIONS, Inc.

100 East 42nd Street,
New York 17, N. Y.
Telephone Murray Hill 5-8400

OFFICERS AND DIRECTORS

C. A. MUSSelman, President

H. S. WEBSTER, JR.

Vice-President and General Manager

W. M. A. BARBER, Secretary

E. P. BEEBE, Treasurer

J. S. HILDRETH CHARLES DOWNES

A. H. RINGWALT

Copyright, 1944, by Distribution and
Warehousing Publications, Inc.
Established 1901

Subscription Rates

United States \$3.00 per year
Canada 3.50 per year
Foreign Countries 4.00 per year
Single Copies, 30c. each; except January Issue,
which is sold only in connection with a
regular annual subscription

Acceptance under the Act of June 5, 1934,
at New York, N. Y., authorized Feb. 8, 1939.

This Month in

D and W

Special Articles

NIT League Meeting	14
Cost Factors in Distribution	15
Avoid Winter Hazards	16
The Inter-American Highway	19
Transportation Link in Distribution	21
The Air Brake Celebrates Its 75th Anniversary	23
Cartels and Their Effects on Distribution	25
Ground Handling and Stowage of Air Cargo	31
A Basis for Air Cargo Rates	34
Use of Conveyor Permits Uniform Dipping	40
Analysis of Readers' Letters on Distribution	44
Postwar Reserves	45
Misuse of Re-Used Cartons	101

o o o

Regular Features

Editorials	13
Air Cargo	37
Handling Equipment Manual	38
Motor Cargo	42
Waterways and Terminals	51
Distribution Worldwide	52
Legal News	64
Cold Storage	80
Books and Catalogs	97
People	109
Equipment, Services and Supplies	55
Public Warehouse Advertisers	62
Index to General Advertisers	114

o o o

FIELDS SERVED BY DW

The publication in which shipper, carrier, receiver, warehouseman and equipment manufacturer meet on common ground to obtain and exchange ideas and suggestions for more efficient and economical distribution of raw materials and finished products. D and W is a clearing house of information for all who are interested in:

SHIPPING . . . by air, highway, rail and water, of raw materials and finished products of all kinds, from points of origin to points of ultimate destination. D and W insists that efficiency and economy are as imperative in transportation of commodities as in manufacturing and selling.

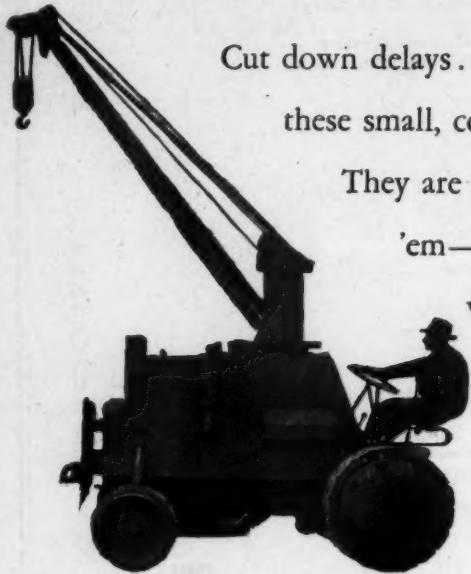
HANDLING . . . of raw materials and finished products, in bulk, in packages, and in palletized units, for and during production, transportation, storage and distribution. D and W submits that handling costs are a vital factor in determining profits.

WAREHOUSING . . . of raw materials, finished products and miscellaneous supplies for any or all of the following reasons: as collateral for loans; to anticipate seasonal buying; to obtain lower rates by making bulk rather than l.c.l. shipments; to have spot stocks readily available at important market centers; as an aid in developing new markets. D and W maintains that, for efficient and economical distribution, intelligent and practical warehousing is indispensable.

DISTRIBUTION . . . of anything anywhere from points of origin and production to points of ultimate use and consumption whether sectional, national or international. D and W takes the position that more efficient and economical distribution is the present major problem of modern business.

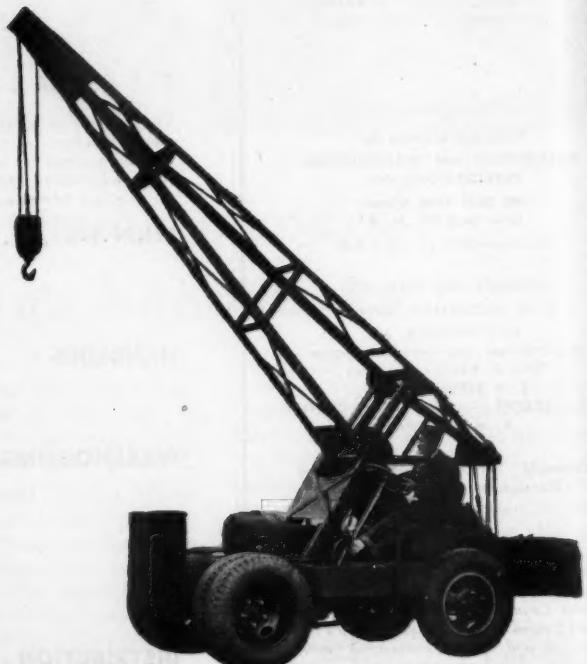
TRACTOR CRANE EQUIPMENT

built by **MATHER**
gives you ECONOMY and EFFICIENCY



The Mather LOADMASTER: A fast, efficient worker with a 3 and 5 ton capacity; gas or Diesel powered; main frame of structural steel members, welded and bolted so that frame may be removed from the Tractor Unit; boom 16' long, standard . . . gooseneck, telescopic and longer lengths available.

The Mather STEVEDORING CRANE: Capacity 3 and 5 tons. Gas or Diesel powered tractor unit, load carried on driving wheels; solid or pneumatic tires; all welded frame; boom 16' standard (longer booms available); tip spool or sheaves optional.

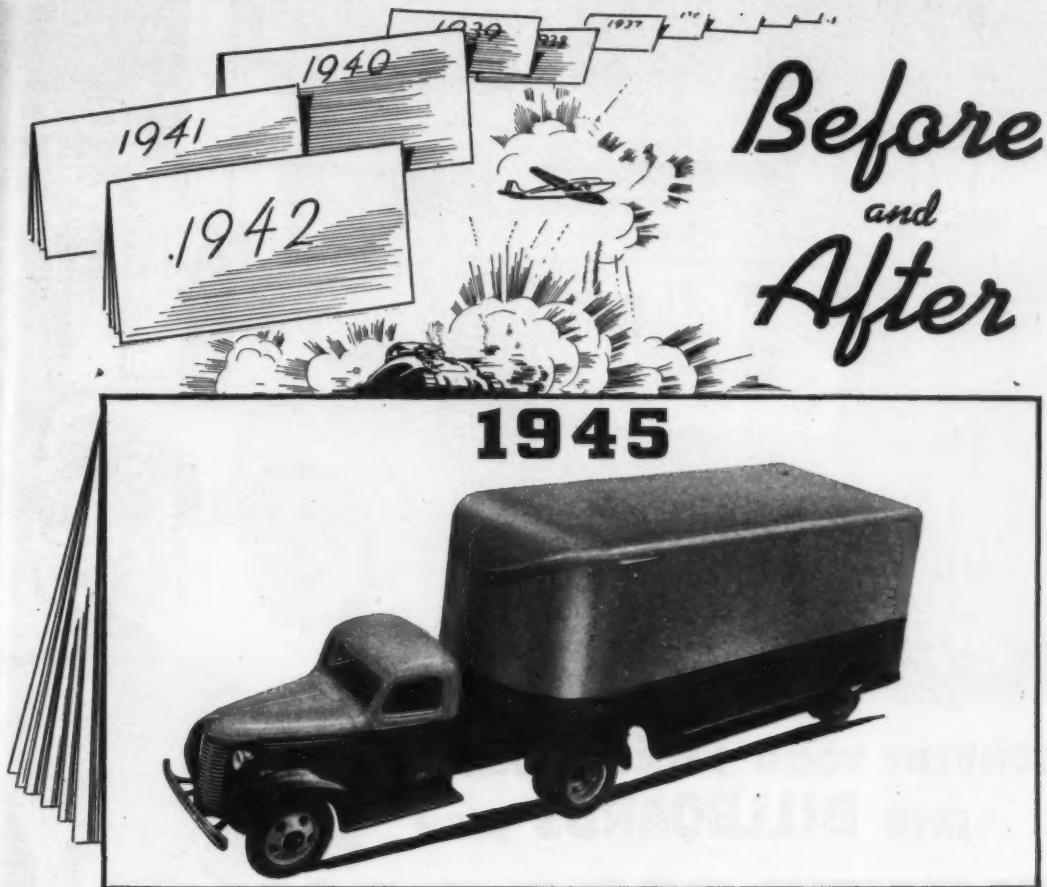


All Mather Cranes are manufactured under patents issued and pending in the United States and foreign countries.

420 LEXINGTON AVENUE

MATHER
MANUFACTURING COMPANY, INC.

NEW YORK 17, N. Y. • Mohawk 4-4151



ALWAYS HERMAN MEANS TOPS in VAN and VAN TRAILERS

A HERMAN-built all-steel welded Van or Van Trailer is your assurance of quality construction in every detail. A unit that gives maximum service at lower operating costs. And that applies to whether it was built years ago—this year—or in years to come. Quality is continuous at HERMAN.

Whether your post-war needs call for vans or van trailers, you can depend on HERMAN for a job that's RIGHT in EVERY WAY—right size—right features

—right construction—right price. Herman's experience in building both is your assurance of satisfaction either way—a van or van trailer that is best for your business because it's Herman-built for your business.

A FEW VAN TRAILERS NOW AVAILABLE

We have a limited number of van trailers now under construction which can be released on presentation of O.D.T. certificate of transfer. Phone or write us for particulars.

4400 CLAYTON AV.
ST. LOUIS 10, MO.





CONVERT YOUR **FREE TRUCK SPACE
INTO **BILLBOARDS** WITH
MEYERCORD DECALS**



**FREE!
TRUCK
VISUALIZER**

Visualizer contains outline diagrams of body types, cabs, rear doors, tops, visors, side panels, etc., for sketching and arranging trademarks, lettering, etc. Also includes important data describing the most effective use of the free advertising space on your trucks. Send for your free copy today.

*Truck decal illustrated is reproduced
by courtesy of General Mills, Inc.*

Here is a practical demonstration of "Rolling Billboard" advertising effectiveness . . . told with excellent poster technique through the powerful medium of free truck space—and Meyercord Truck Decals. Companies that SELL advertising space on their trucks charge as high as \$240 per truck per year. Multiply this amount by the number of trucks in *your* fleet—to learn the value of *your* "Rolling Billboards" to advertise *your* product or service. Meyercord Decals are a durable, weather-tested method of truck decoration. They're economical for a dozen trucks or a thousand. Any design, in any size or colors, can be reproduced at a fraction of hand-painted cost, and fast overnight application saves labor, money, and idle truck time. Free design service. Write for Truck Visualizer. Please address all inquiries to Department 30-12.

Buy War Bonds . . . and Keep Them

THE MEYERCORD CO.

World's Leading Decalcomania Manufacturer

5323 WEST LAKE STREET • CHICAGO 44, ILLINOIS

GENERAL



Headquarters for **FIRE PROTECTION**

IF YOU DON'T KNOW FIRE PROTECTION EQUIPMENT, KNOW THE MAKER.

General Detroit has been specializing in the design and manufacture of this type of equipment for more than forty years. In that time it has pioneered in the development of many of the most efficient methods of combating the menace of fire.

Its extensive plant and personnel, located in branches and distributive outlets from coast to coast, are dedicated to the task of reducing the needless waste of life and property that fire creates.

These are reasons why, among leaders in all fields of American industry, General's reputation for integrity of product, dependability of performance, and speed and quality of production is well known.

The experience of these leaders, based on use, convinces them that—

if it's **GENERAL** it's dependable.

THE GENERAL DETROIT CORP.

2270 E. JEFFERSON AVE., DETROIT, MICH.

CHICAGO Distributors in all principal cities NEW YORK

West Coast Affiliate: The General Pacific Corp.
Seattle • LOS ANGELES • San Francisco



G-75 FireGuard vaporizing liquid fire extinguisher is the only one quart extinguisher in the world with these exclusive features:

- Safety Phlare assures new pump action at all times.
- Panic-proof lock releases with right or left turn.
- One-piece cap design for added strength, longer life.
- And nine other outstanding features by "GENERAL."





The Wise Men Knelt

Three Wise Men came bearing gifts, the greatest being Faith. They knelt . . . and through their giving received the strength of Courage and the wisdom of Righteousness.

Today, on world-wide battlefields men and women kneel to replenish the courage needed to meet the day, or darkness, to come. In every home the unflickering flame of the candle of Faith is kept burning, the cumulative light more brilliant than the sun.

The prayers of, and for, our fighting men and women are humbly offered that we may have the fortitude and wisdom to attain a righteous Peace, that we may live a life of Peace with our neighbors, that for our children the priceless American heritage of Liberty and Self-government shall not be lost.

The Manhattan STORAGE & WAREHOUSE CO.

52nd STREET and 7th AVENUE • N. Y. C. • 80th STREET and 3rd AVENUE



SURVIVAL OF THE FITTEST

Essential home front transportation . . . vital to the nation in war and peace . . . is in the midst of a struggle for survival. The supply of motor trucks has been dwindling for nearly three years. Practically none can be replaced. In an effort to give real help to all owners of motor trucks in this critical situation, White pioneered *Personalized Service*. It is unlike any other truck maintenance plan. It is far more comprehensive. It will work for you—regardless of where your service work is done. It will postpone the day of the last mile built into your truck. Your local White Branch or Dealer will furnish full information.

THE WHITE MOTOR COMPANY

Cleveland, Ohio, U. S. A.

A limited number of new Super Power Whites is now in production for essential services. Your White representative will be glad to help you make application.



FOR MORE THAN 40 YEARS THE GREATEST NAME IN TRUCKS

When writing advertisers please mention D and W

D and W, December, 1944—9

HORSE SENSE ABOUT TRACTOR POWER

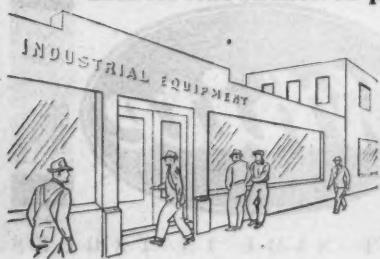


IN the sober years ahead, the accent again will be on economy . . . and the key to economy in tractor power is endurance. It is something that does not show up in a day of demonstration nor in a table of specifications. Endurance means sustained performance and continued economy of fuel and oil. It means low cost of maintenance. It means long tractor life and low annual investment charge.

Endurance in Case industrial tractors comes not from novel features but from a policy of making every part a bit better than might seem necessary. It includes choice of quality materials, ample dimensions and liberal allowance for load stresses. In particular it means

exceptional care in design to keep out destructive dirt and to provide effective lubrication. Case endurance comes from tractor-building experience that began in 1892.

Ask your Case industrial distributor . . . or write us . . . for actual records of tractor endurance in conditions comparable to yours. There are four basic sizes of Case industrial tractors, covering completely a weight range from 2500 pounds to more than 10,000 pounds. Besides their endurance in regular push-pull work, their extra strength makes them ideal power plants for mowers, brushes, loaders, cranes, winches, and other mounted equipment. J. I. Case Co., Racine, Wis.



CASE



In Business to Serve You • Your Case industrial distributor makes a business of supplying and servicing the kind of tractor power and allied equipment that fits the needs of your business and of your location. Backed by the records, experience and engineering talent of the Case Industrial Division he is qualified to give competent counsel on the choice, care and operation of industrial machinery.

Effective December 1st

BRANIFF International AIR EXPRESS

IN MEXICO—Compania Mexicana de Aviacion, S.A.
...connecting with Braniff Airways at Nuevo Laredo.

Between all U. S.
points and
Mexico

Now Braniff Airways provides through, streamlined air cargo service between all points in the U. S. and Mexico. Free pickup and delivery... paper work reduced to a minimum... low rates... no necessity for "in bond" shipments... immediate, in-transit customs clearance at Laredo, largest, most complete port of entry to and from Mexico. For expedited, efficient shipping... specify BRANIFF—

*All The Way
Without Delay*



CALL YOUR LOCAL RAILWAY EXPRESS AGENCY FOR THE BRANIFF SHIPPER'S LETTER OF INSTRUCTIONS. FREE PICK-UP AND DELIVERY...NO DELAY ENROUTE

FOR MEMORANDUM TARIFF AND FURTHER INFORMATION, WRITE

BRANIFF AIRWAYS
GENERAL TRAFFIC OFFICE, LOVE FIELD, DALLAS 9, TEXAS

ROUTE YOUR MEXICAN SHIPMENTS VIA BRANIFF INTERNATIONAL AIR EXPRESS SERVICE



One Man slides or rolls the load onto Elevating Endgate.

LIFT YOUR PROFIT LINE WITH THE **FRUEHAUF ELEVATING ENDGATE**



1 MAN DOES THE WORK OF 3



Elevating Endgate raises driver and load from ground to truck-bed level in about 10 seconds. 

Elevating Endgate stops automatically at bed level. Driver shifts load onto truck. 



Secure all the facts from your nearest Fruehauf Factory Branch—or write for a free copy of the new, 12-page, fully-illustrated catalog, "Fruehauf Elevating Endgate."

Three men lift load to bed of ordinary truck.



THE FRUEHAUF ELEVATING ENDGATE is a combination Elevator and Endgate. It uses ENGINE-POWER instead of "BRAWN-POWER" to load and unload trucks and Trailers. It saves time . . . eliminates extra manpower . . . lessens the possibility of damage to goods, or accidents to men. All of which adds up to substantial savings—*increased truck or Trailer earnings*.

The unit is ideally suited to handle heavy materials—it will lift up to 1 ton—either fragile merchandise, or goods in large volume. In many cases one man can readily load and unload objects ordinarily requiring several men—and do it in a fraction of the time formerly required.

WHAT IT IS—Briefly, the Fruehauf Elevating Endgate is a steel tailgate which acts as an elevator. It is hydraulically driven by power from the truck engine—conveniently controlled by two or more levers at rear of truck or Trailer. Heavy loads may be smoothly raised or lowered between ground and truck-bed level by the mere shift of a lever.

PROVEN IN ACTION—For several years now, the Fruehauf Elevating Endgate has been proving its ability to lift profit lines for West Coast truckers. Now it is being made available to users of trucks and Trailers on a nation-wide basis.

FRUEHAUF TRAILER COMPANY • DETROIT 32
World's Largest Builders of Truck-Trailers
Service in Principal Cities

FRUEHAUF TRAILERS



*"Engineered
Transportation"*
REG. U. S. PAT. OFF.

Traffic Managers and Materials Handling

IS materials handling a function of industrial traffic management or is the mechanical handling of materials a function of the engineering department?

This is a question that industrial traffic managers as well as engineers may find advisable to re-examine in the light of the ever-growing mechanization of handling methods both in production and distribution. We suggest, also, that management might find it advantageous to look into the matter. Methods and practices are changing.

At a recent regional meeting of mechanical engineers, which we attended, the superintendent of materials handling of a large industrial corporation explained the nature of his job. He controls and supervises all freight movements to, within and from his firm. He directs the movement of raw materials from points of origin to his company's branches, the intra-plant movements of all prefabricated and finished products and supplies, and the packing, routing and shipping of all orders. In short, his job is that of traffic manager and materials handling engineer combined, with emphasis on the latter.

While outstanding, we understand this is not an isolated case. Some people think there is a trend toward consolidation of the functions of the traffic and engineering departments. We rather doubt it. We do not believe it will work out in normal practice. It is neither sound nor sensible.

We are strongly convinced that coordination between the traffic and engineering departments will produce more desirable results than by burdening one with the over-all job. Neither can fulfill the functions of the other entirely.

Traffic managers and mechanical engineers are specialists in their respective fields. Their points of view, their training, experience and problems are different. As a rule, a mechanical engineer is a specialist either in the design or construction of machinery, or in the application of energy by mechanical means. The basic function of industrial traffic management is to direct the movement of raw materials and

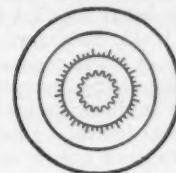
finished products of all kinds from points of origin to points of use or consumption at the lowest cost consistent with efficiency.

The difference becomes clearer, perhaps, by enumerating a few of the major operations involved in traffic direction, as Mr. H. G. Elwell, well known traffic consultant, did in our October issue. Among other things, these include: maintenance of tariff files; examining rate and route quotations; classification studies; analyzing tariffs and comparing rates; checking transportation bills; preparing and filing claims; handling rate cases before regulatory bodies; studying warehouse connections, market extensions and economic matters related to traffic cost control.

We doubt whether any engineer, no matter how competent, could do such work without special training and several years of practical traffic experience. Similarly, we question whether there are any traffic managers, no matter how varied their experience, capable of setting up a materials handling system as efficiently and economically as a materials handling engineer.

Modern industry requires specialization. Much of our economy is based upon it. Specialization requires coordination. The consolid-

Editorials



... around every circle another can be drawn ... every end is a beginning ...

ation of two highly specialized functions defeats the purpose of specialization, which, obviously, is to produce maximum efficiency and economy of operations.

In this connection, some of our readers may recall an article that *D and W* published in September, 1939, by Mr. Matthew W. Potts, our materials handling editor, who, incidentally, is a member of the American Society of Mechanical Engineers. The title of the article was "Materials Handling, a Function of Traffic Management." The statements made five years ago by Mr. Potts are as pertinent and as valid today as when they were written. For example:

"The traffic department," Mr. Potts wrote, "should not burden itself with engineering details involved in the construction of equipment, buildings, and the layout of machinery, but should act more in

(Continued on next page)



Unto All Men . . .

UNTO all men, we extend the cordial greetings and felicitations of the season, and, in particular, to all of our readers we take pleasure in expressing our sincere and hearty thanks for the generous cooperation we have received during the year now drawing to a close.

In the year ahead, we wish you

all the blessing of abundant health, and the fulfillment of your hopes.

We pray, also, that the maimed and the bereaved may be healed and comforted, and that during the coming year we may see the beginning of a just and lasting peace established upon the broad foundations of a deeper faith in kindness and good will among men.

an advisory capacity with the idea of bringing about the proper coordination of all departments so as to effect the most simple and, at the same time, comprehensive system for handling materials."

He also pointed out that there is much that traffic managers can do, particularly in small organizations, without trespassing upon the domain of the engineering profession. It would seem logical, in establishments where there are no engineering departments, for materials handling to be under the direction of the traffic manager, provided he is competent to undertake such supervision. If he is not, there are a number of able engineers and materials handling consultants available.

But it is so manifestly to the traffic manager's advantage to know the rudiments of materials handling that it seems reasonable to assume a substantial number have a practical working knowledge of the sub-

ject. As Mr. Potts said in the article referred to above:

"The tendency on the part of industrial plant executives to reduce their handling costs and, at the same time, speed up the transportation of materials, affords a ready opportunity for progressive traffic managers who can visualize problems in their entirety . . . the traffic manager who is familiar with the latest methods of handling materials, who is willing to investigate them and recommend improved methods, is able to show management ways to save considerable money."

That was true five years ago, it is true today, and it will still be true after the war.

It is the opinion of some authorities that the Army and Navy, during the past few years, have improved materials handling methods more than industry did during the preceding quarter of a century.

When the officers and enlisted men responsible for these improvements return to civilian life they will expect to make use of their knowledge in industry. Management, it seems to us, would be wise to prepare for that eventuality now.

As a suggestion, we submit that all traffic departments should have a regular materials handling section or division. If practicable, such a section should be organized with the advice and assistance of the engineering department. Whether there is an engineering department or not, when it becomes possible we recommend that the materials handling section of the traffic department be placed in charge of an experienced and qualified ex-service man.

If management undertakes something of this kind, we venture to believe, industry is likely to simplify many of its postwar handling problems.

NIT League Urges Coordination of Carriers, Reelects Keeler, Acts on Many Reports

RESOLUTIONS urging coordination of common carriers; withdrawal of the Government's anti-trust suit against the railroads; establishment of standard transportation accounting and cost finding, particularly among motor carriers; condemnation of lax handling of loss and damage claims by motor carriers, plus the reelection of incumbent officers and the selection of Chicago for its next convention, featured the 37th annual meeting of the National Industrial Traffic League, Nov. 16 and 17, at the Hotel Pennsylvania, New York. John B. Keeler, president, presided. Members and guests in attendance totaled about 500.

There were no speeches. The business of the meeting consisted in acting upon reports submitted by standing or special committees. Noteworthy among these were the following:

Control of One Form of Carrier by Another: The League endorsed the principle "that it should be permissible by law for operators of one form of transportation to operate, through ownership or contractual arrangements, other forms for performing of a complete transportation service," if in the public interest and so approved by appropriate regulatory authorities; and, furthermore, "that operators of different forms of transportation should be encouraged under proper safeguards in the public interest to adopt any advancements in means of transport which will tend to

make more complete or economical their service to the public."

Regulation of Air Transport: Endorsed exclusive federal jurisdiction over safety regulations; but urged state regulation of purely intra-state commerce.

Air Express: Favored "over-all re-

sponsibility and security to users of air express service and continued coordination of transportation facilities such as now provided by the Air Express Division of the Railway Express Agency in planning for the future of air express service of country-wide coverage."

Before adoption of this resolution it was entered upon the minutes as the sense of the meeting that air cargo was to be understood as included within the meaning of the resolution, and that the use of the words "Railway Express Agency" were not intended as meaning that agency exclusively.

Anti-Trust Suit: The Department of Justice was asked to withdraw the civil suit filed in Lincoln, Neb., against the major railroad interests accused of violations of the Sherman Anti-Trust Act, on the grounds that "the broad prayers (if granted) would tend to destroy beneficial practice and procedures of long standing, contrary to the public practice and to the disadvantage of shippers of the country."

Loss and Damage Claims: Further meetings with the claim committee of the American Trucking Assns. were authorized, and an offer of the League's assistance was ordered tendered to the ICC in its investigation of the practices of motor common carriers in the matter of handling loss and damage claims.

(Continued on page 105)



REELECTED . . . J. B. Keeler, president, National Industrial Traffic League

COMPETITION in industry during the postwar period will be far more complicated than ever before in the history of America. Careful planning will have to be carried on by every unit of the industrial world looking to the reduction of all types of cost, not alone in production, sales, etc., but also in one of the most important of all units, namely, transportation.

Unfortunately, in many manufacturing establishments it is difficult to ascertain the truth concerning cost of transportation. It will continue to be difficult until executives comprehend the need for setting up a single schedule embracing each part of cost of transportation, instead of tacking the parts "piece meal" onto various accounts, thereby "smoke-screening" the significance of transportation cost. How these costs eventually may be allocated is not the issue. What we wish to emphasize is that they should be segregated to disclose the actual conditions.

Cost of transportation can and must be lowered. But this will not be fully accomplished in cases where management cannot discern all of the facts. And where some of the particulars are hidden, how can management have all of the evidence?

Executives Vague on Traffic

When one sits down with industrial executives it frequently develops that their ideas of traffic work are vague. They seem to think a traffic department's scope covers only quotation of freight rates, routing, checking of freight bills and similar routine operations. Of course, these are important basic operations of traffic department effort, but there are many more, all directed toward the control of transportation cost.

In the final analysis, the major function of a traffic department is to direct the movement of materials and products at the lowest cost consistent with efficiency. Why, then, is management so indifferent to this salient phase of business?

Is this situation the fault of the traffic managers, as a group, or that of the executives? Should traffic managers after gleaning basic facts insist on presenting them to the executives, whether they request them or not, or should the executives seek the information?

Transportation Costs

Take the subject of the over-all cost of transportation. What thought have traffic managers given to it? What consideration has management given to it?

To properly explore the possibilities of reducing cost of transportation there is required the "setting up of a single schedule embracing each part." If traffic managers have not given attention to this need, then how can management be expected to recognize the place of the traffic department in the business structure?

But, of even greater interest is this: How can management know the facts as to cost of transportation if traffic managers fail to force the issue for the benefit of all concerned?

It is a matter of importance, and

Cost Factors in Distribution

In many manufacturing establishments it is difficult to ascertain the truth about transportation cost. It will continue to be difficult until executives comprehend the need for setting up a single schedule embracing each part of the cost of transportation. How these costs may be allocated is not the issue. They should be segregated to disclose the actual conditions.

By HENRY G. ELWELL
Traffic Consultant

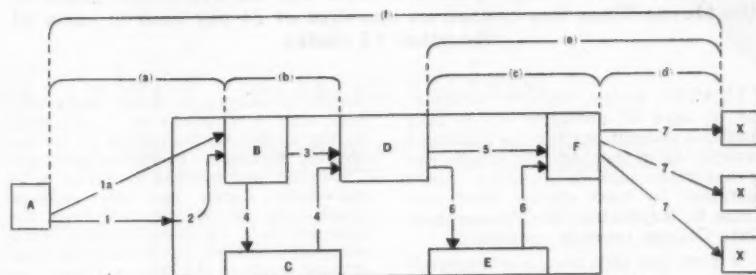
○ ○ ○

generally of extreme importance, that the chief executive of any industrial establishment be furnished with adequate information regarding costs. However, it is not desirable for his department heads to swamp him with details. What he primarily needs are the bare vital facts; the details to support the facts should be at hand,

but kept in the background unless wanted for clarification.

These details of cost, like the "six-shooter" of the old-time Western sheriff, seldom may be used in a discussion with the chief executive, but, like that gun, when required, they probably will be needed in a hurry.

On the other hand, while the "bare



A Source of Raw Material

B Receiving Department

C Stock Room or Warehouse for Raw Material

D Factory

E Stock Room or Warehouse for Finished Goods

F Shipping Department

X Customer

NOTE: In actual practice C and E may be contiguous buildings or they may be separate floors of the one building or separate sections of a floor.

Raw Material from Source—		(a)	Freight Inwards.	(i) TRANSPORTATION	
1	By Railroad to property line of Manufacturer				
2	Via private siding (if any) to Receiving Dept. entrance.				
1a	By Automobile or other means to Receiving Dept. entrance.				
Raw Material from Receiving Dept. entrance—		(b)	Materials Handling Inwards.		
3	Directly to Factory entrance				
4	Via Stock Room or Warehouse for Raw Material to Factory entrance.				
Finished Goods from Factory exit—		(c)	Materials Handling Outwards.	(e) DISTRIBUTION	
5	Directly to Shipping Dept. exit				
6	Via Stock Room or Warehouse for Finished Goods to Shipping Dept. exit.				
7 Finished Goods from Shipping Dept. exit to Customers.		(d)	Freight Outwards.		

(a) Freight Inwards and (b) Materials Handling Inwards are parts of the cost of Production.

(c) Distribution is part of the cost of Selling.

vital facts" must be exactly that and nothing else, they are not that unless they include all the adequate information.

For instance, assume a general sales manager reported that the sales for a given month amounted to \$100,000. Here he furnishes one vital fact. But if his company sells, let us say, three lines of products, his report would not contain all the vital facts. In such a case, he would have to add that the total of \$100,000 was made up of \$50,000 for one, \$40,000 for another, and \$10,000 for the third.

Likewise, the advertising manager's report may give the total cost of advertising for a given month as \$10,000. Here, to provide the vital facts, he would show the total as being made up of so much for newspaper space, an additional amount for radio time,

and probably an amount for magazine space.

What does the traffic manager report? Think of your own business concern. What information does your traffic manager provide for your chief executive which will inform him as to transportation cost?

It has been stated by the U. S. Department of Commerce: "Transportation costs in the average business accounts for as much as 25 per cent of the total expenditures; in some, for a great deal more than this." Unfortunately, hardly an executive, and only a comparatively few traffic managers, ever gave heed to this warning which was based on exhaustive studies made throughout the United States.

So, Mr. Traffic Manager, do you add
(Continued on page 74)

Avoid Winter Hazards!

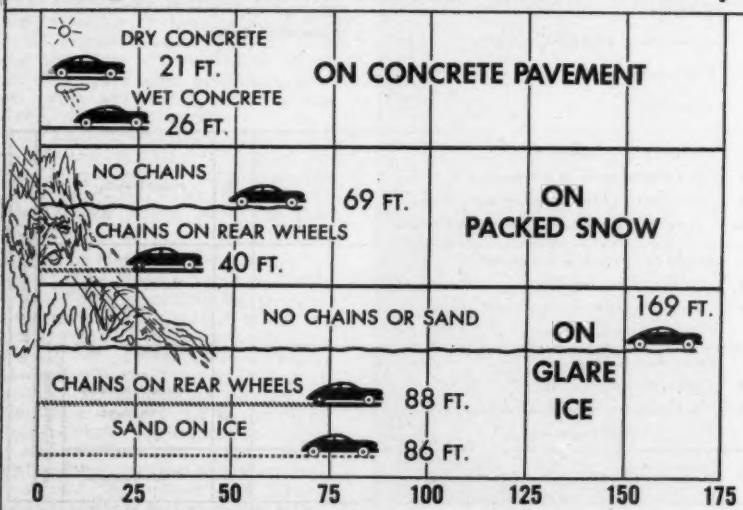
Skidding and reduced visibility in 36 snow-belt states ran the mileage death rate up 53 per cent over the summer rate in those states last year, while unusually severe snow and ice conditions south of the Mason-Dixon line caused an increase of 24 per cent in some of the other 12 states.

UNLESS motor vehicle operators in over 30 northern states take practical precautions for the increased hazards of winter driving, there can be a serious lack of highway transportation by next spring. Professor Amos E. Neyhart of the Pennsylvania State College recently predicted.

"I have just seen results of research into last winter's accidents to essential vehicles, made by Professor

Ralph A. Moyer of Iowa State College, who is chairman of the National Safety Council's Committee on Winter Driving Hazards," Prof. Neyhart said. "Skidding and reduced visibility in 36 snow-belt states ran the mileage death rate up 53 per cent over the summer rate in those states, while unusually severe snow and ice conditions south of the Mason-Dixon line caused an increase of 24 per cent in some of the other 12 States.

Braking Distances on Various Surfaces at 20 mph



Police and war production authorities are concerned with minimizing traffic tie-ups and destruction of vital, irreplaceable vehicles this wartime winter. Above National Safety Council chart shows average braking distances on various road conditions. Actual stopping distances are 22 ft. more, however, because it takes average driver 1/2 of a second to react and apply brakes after seeing reason to stop. This means 22 ft. at 20 m. p. h.

"All drivers of vehicles essential to wartime economy should immediately prepare and repair winter safety equipment such as windshield defrosters, anti-skid chains, heaters, and windshield wipers. Equipment which cannot be replaced can be repaired if it is done now."

Pointing out that inadequate traction and reduced visibility are the main causes of increased traffic death rate and winter smashups, Prof. Neyhart said that many vehicle owners maintain good condition of standard equipment, but often fail to prepare for added hazards of the snow and ice season until too late.

Prof. Neyhart, administrative head of the Penn State Institute of Public Safety, is also road training consultant for the American Automobile Assn. and counselor of the Commercial Vehicle Section of the National Safety Council.

"This must not be a winter for blind driving or a skid to the junkpile," he warned. "Baby your buggy, be it car or truck, for motor vehicles are vital to victory and civilian economy and new ones won't be available 'till later than you think."

The following practices, based on National Safety Council research, are recommended "winter rules" for all who must drive this winter whether in passenger car or truck:

1. If you must drive this winter, fill your car to comfortable capacity and go prepared to get through, regardless of snow or ice.

2. Reduce your speed to conform to the conditions of the road, and take no chances.

3. Use tire chains on ice and snow to reduce braking distances as much as 40 or 50 per cent. Chains also provide necessary "go" traction, and uniformity in performance under severe winter road conditions.

4. Follow other vehicles at a safe distance. It takes from 3 to 11 times as long to stop without anti-skid chains when pavements are snowy or icy.

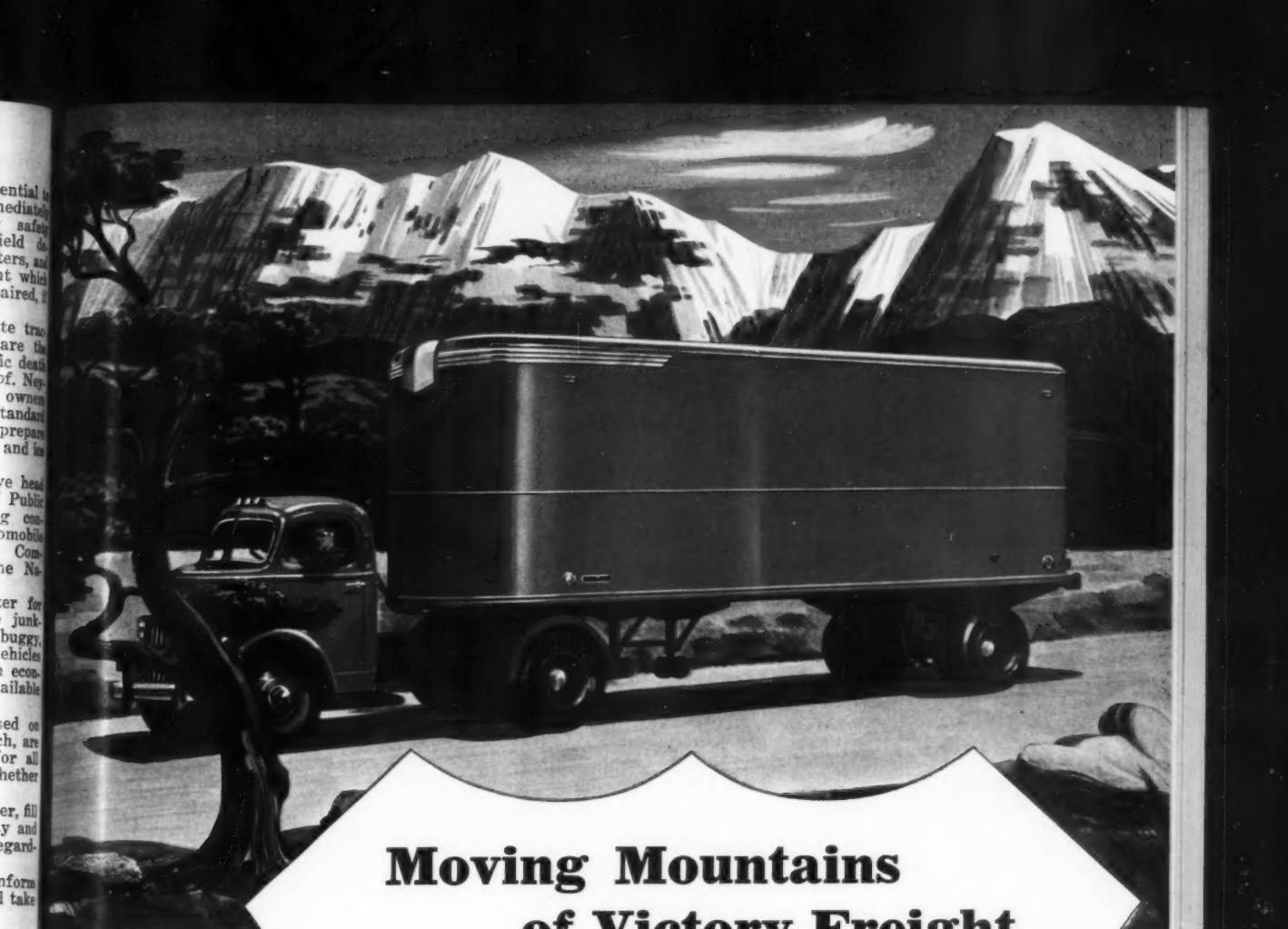
5. Apply brakes on slippery pavements lightly and with a pumping action. If you jam on the brakes, they may lock and throw your car into a dangerous skid. Try to avoid need for making a quick stop in front of another vehicle. A rear-end collision may cripple your car for the duration.

6. Keep windshield and windows clear of snow and ice outside, and fog and frost inside. Remember, you must see danger to avoid it.

7. Keep posted on winter road and weather conditions. A safe driver is always aware of his limitations and equipped to get through safely and on time. Be a good defensive driver.

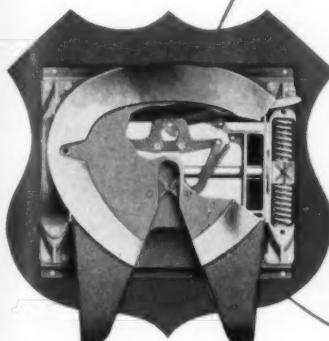
There is every indication that the safety and conservation efforts should be accentuated now for all of the reasons which have existed in the war period. Further, a let-down now, in addition to being likely to be disastrous, will make more difficult the period of readjustment which lies ahead, nobody knows exactly how long.

If the wartime experiences have taught anything, it is that motor carriers can do better with less under more adverse circumstances than anyone thought possible, including the carriers themselves.



Moving Mountains of Victory Freight

ON EVERY U. S.
HIGHWAY



America's heroic accomplishments in this war have startled the world. "Moving mountains" has become an everyday fact—and Highway "Clipper" and "Freightmaster" Trailers have done their full share in the all-important job of moving mountains of Victory freight.

Highway commercial trailers are now again in production, with many improvements grown out of Highway's wartime experience. Not the least of these is the new Duolock Lower Fifth Wheel, full rocking, spring cushioned, with safe dual-cam locking, the finest yet developed. Because this mounts on the truck, it can be used with any semi-trailer equipped with a standard S.A.E. kingpin. This improved fifth wheel is standard with all new "Clippers" and "Freightmasters".

Full details about the new improved Highway "Clippers" and "Freightmasters" are shown and described in two new color booklets just off the press. Write for your copies now, and let your next trailers be Highways!

HIGHWAY TRAILER COMPANY

Factory and General Offices, Edgerton, Wisconsin

Truck Trailers and Bodies • Earth Boring Machines
Winches and other Public Utility Equipment



HIGHWAY AMERICA'S
QUALITY **TRAILERS**



PUT HYSTERS TO WORK



*and you'll lower the **COST PER TON**
of materials handled*

They're ready to take over your materials handling work, and keep things moving on schedule. The HYSTER Karry Krane and HYSTER Fork Lift Truck bring all-around efficiency to any organization having materials to handle. They do the job better, save time and labor, and lower costs per ton of materials handled.

HYSTER FORK LIFT TRUCKS: A line of advanced design. For lifting, carrying, unloading or high piling. Pneumatic tires; travel anywhere. Trun-

nion steering; turn in own length. Gasoline powered; standard controls. Ideal for narrow aisles. Load capacities 2000 to 15,000 lbs.

HYSTER KARRY KRANE: A mobile, general utility crane. 10,000 lb., load capacity. Five-way adjustable boom. Six large pneumatic tires. Traction wheels forward; double trunnion rear for steering. Highly maneuverable; turns in own length. Forty H. P. gasoline engine. Four speeds forward; four in reverse. Standard controls. Write for catalogs.



BRANCH OFFICES: 221 N. La-Salle St., Chicago 1, Ill.; 90 West St., New York 6, N.Y.; 1022 Denrike Bldg., Washington 5, D.C.; 233 Ninth St., San Francisco 3, Calif.; Masonic Bldg., New Orleans 12, La.; 2724 First Ave. So., Seattle 4, Wash.; 2700 Santa Fe Ave., Los Angeles 11, Calif.; 215 Euclid Ave., Cleveland 14, Ohio; 211 Farnsworth Bldg., Memphis 3, Tenn.

HYSTER

COMPANY

2940 N. E. Clackamas
PORTLAND 8, OREGON

1840 North Adams
PEORIA 1, ILLINOIS

Pioneer manufacturers of mobile materials handling machines; all gasoline powered; all pneumatic tire mounted.



A stretch of the pioneer highway already paved

The Inter-American Highway

The construction of a military highway from the southern Mexican frontier to Balboa basin in the Panama Canal Zone, a distance of 2,561 kilometers, or roughly about 1,600 miles, which has been pushed forward in the face of almost insuperable difficulties, is one of the epic stories of this war.

PEARL HARBOR changed the face of things as they were. The United States government suddenly realized that at Panama in the Canal Zone and its surroundings it had not only a huge investment in money but a profoundly vital interest.

Simultaneously, all the Americas realized their geographical unity and solidarity. The western continent—the American continent—was isolated by war. Exports to Europe vanished; exports even to the northern half of the Continent dwindled because water transport alone had been developed in the past.

Highway to Panama

Steps were at once taken to open a through overland route between the United States and Panama. Funds were made available, surveys of the incomplete sections were started and plans made to construct a pioneer road across all the gaps lacking all-weather surfaces.

These gaps aggregated 1060 kilometers and occurred in every country south of Guatemala. The surveys required stretched to more than 790 km.

The amount of heavy construction and the unusual number of bridges led at once to an adjustment which would provide the most convenient and practicable rail and highway combination from the United States to Panama. This arrangement contemplated the use of the standard gauge railroads in Mexico to the southern frontier at Tapachula or Suchiate and a pioneer road from either or both



By EDWIN W. JAMES
*Chief, Inter-American Regional Office
Public Roads Administration*

○ ○ ○

Mr. James is chief, Inter-American Regional Office of the United States Public Roads Administration. He is one of the great roadbuilders the United States has produced.

He spends as much time in the field as in Washington. Bridge building operations of the Public Roads Administration in Central America are under his direction. So also are the engineering reconnaissance surveys being made to determine the route from the Panama Canal south to Colombia.

He is author of many important highway engineering studies and articles, including "Highway Construction Administration and Finance."

of those points to Panama. Such a combination would make through traffic possible with a single transfer from rail to truck.

Road Specifications

The pioneer road project was authorized in June, 1942, by two directives from military authorities, one providing for immediate surveys and the other for construction of a surfaced road on the location of the proposed Inter-American Highway, over all sections which did not at the time have all-weather surfaces.

The pioneer road surface was to have a minimum width of 10 ft., and a thickness of 8 in. of compacted gravel or crushed stone without artificial binder. A maximum controlling grade was set at 10 per cent with a tolerance up to 12 per cent for short distances. No maximum curvature was set as it was expected that the construction would follow the alignment standards of the Inter-American Highway. Advantage was to be taken of the fact that where alignment is fixed a variety of profiles can be laid. With the law standards of the pioneer road and the higher standards of the ultimate Inter-American Highway by this process, if carried through, would assure that only a small fraction of the work on the pioneer road would be discarded in final construction.

Bridges and Culverts

An adjustment had to be made also with respect to bridges and culverts.

The total number of bridges over 20 ft. in length remaining to be built between the southern Mexican frontier and the Panama Canal Zone was 97, and the very large footage of box and pipe culverts needed could be determined only after completion of surveys. It was obviously impossible with restrictions that affected steel to fabricate all the needed bridges, or provide reinforcement for so large an amount of concrete as would be required for culverts.

It was stipulated therefore that certain hazardous bridges, if possible, should be completed according to final standards adopted for the Inter-American Highway and that other bridges should be made temporary structures, of wood, steel or masonry, built somewhat down stream and off line, if possible. Culverts were treated the same way. Certain ones that could be built exactly in line and at grade of finally anticipated profile could be made permanent, others should be temporary. It was expected that even some log culverts might be built in the temporary class.

Nine Contracts Let

Construction was handled jointly by the Public Roads Administration and the U. S. Engineer Corps and because of the conditions existing it was decided to do the entire job so far as possible by contract. The Engineer Corps was responsible for the pioneer road work and Public Roads Administration for the standard work on roads, bridges and culverts regardless of whether the drainage structures were on pioneer or standard sections of the road. In all, nine contracts were let for roads and bridges covering a total of 1405 kilometers of highway and some 18 bridges.

Three of the Republics having highway organizations partly or wholly equipped took contracts to construct the sections of pioneer road included within their limits. Guatemala undertook to reconstruct an existing dirt wagon road from Malacatan via Ayutla, Retalhuleu, to Escuintla. El Salvador contracted to reconstruct and extend a road from San Miguel via Santa Rosa to the Goascoran river, and Nicaragua agreed to build a new road from the vicinity of Jinotepe via Nandaime, Rivas and La Virgen to the Costa Rica frontier. It was necessary to provide Guatemala and El Salvador with some additional equip-



Road construction in Costa Rica.

ment to that available to the highway department. Such equipment was furnished on a rental basis.

Private contracts were made with the Foundation Co., New York, Martin Wunderlich Co., Jefferson City, Mo., Swinnerton, McClure and Vinnell, San Francisco, and with Ralph E. Mills Co., Frankfort, Ky., for road construction; and with the Frederick Snare Corp. for bridge substructures and steel erection. Bridge steel was fabricated by contract by the United States Steel Export Co.

Honduras-Costa Rica Links

The Swinnerton contract covers the section of pioneer road in Honduras from the Goascoran River at the Salvador border to El Espino on the Nicaragua line, via Nacome, Choluteca and San Marcos, following throughout the location proposed for the final standard construction on the Inter-American Highway. The total length in Honduras is 164 km. In addition, the Swinnerton associates have the northern section in Nicaragua from the Honduras line via Somoto, Condega and Esteli, to Sebaco, where present standard construction is picked up and continues to Jinotepe. The Foundation Co. undertook to construct the section in northwestern Costa Rica from the Nicaragua line, practically at the shore of Lake Nicaragua to Naranjo, via La Cruz, Liberia, Canas and San Ramon. Difficulties, later referred to, in securing equipment and supplies led to the termination of the contract with the Foundation Co. and at this

time the work is being carried on by force account.

Mountain Terrain

The Ralph E. Mills Co. has a very difficult section in Costa Rica from Cartago to San Isidro del General, about 94 km. long, that crosses the continental divide at an elevation of 10,931 ft. in extremely rough terrain. Wunderlich continues the work in Southern Costa Rica down El General valley via Buenos Aires and Paso Real to the Panama frontier at the crest of the Santa Clara range, thence across the Chiriqui Plateau, and down the mountain to Concepcion and David at which latter place terminates the construction of the Central Highway in Panama from the Canal Zone, 493 km. to the east.

The Frederick Snare Corp. was awarded a contract to construct six bridges: One at the Goascoran river, on the Honduras-El Salvador line; two in Honduras at the Cuacirope and the Rio Grande near Nacome; one at the Ochomogo north of Rivas, Nicaragua; and one each at El General and Brus Rivers in southern Costa Rica. This contract has been augmented by additional bridges as steel has been made available. Three additional structures in Nicaragua at the Rio Grande, Aguacatista and Calabazas, for which substructures are already complete were first added and later nine structures in Costa Rica were included. These latter with one exception lie in El General valley between the General and Brus bridges originally provided for.

Organization Difficulties

As should be expected, under the circumstances coincident with the development of this construction program, the difficulties of organization have been exceptional. Although the project was not undertaken solely as a war measure, because the cooperative construction and the greater part of the necessary funds were provided before the forced entrance of the United States into the war, nevertheless, the addition of the pioneer sections and the expedited program were obviously incident to defense activities from the point of view of transportation insurance.

This original plan called for the completion of all surveys, the letting of all contracts, the assembling of all

(Continued on page 82)

LEFT: Road construction in Central America. RIGHT: This modernized ox cart is at work on the Tipibaca-Maderas section of the Inter-American Highway in Nicaragua. Most of the highway is being built with modern highway construction equipment, but considerable hand labor is used also, as well as such ancient equipment as this cart.

All photos courtesy Public Roads Administration



OVER the past few years, more and more attention has been given to distribution problems. Now more than ever it is necessary to consider the needs and the opportunities in this field. Distribution, not production, is our big, number one postwar problem.

Despite the growing awareness of the importance of distribution both in our national and international economy, we find that transportation, a major factor in distribution, is virtually ignored in many of the discussions. This is particularly true at various marketing conferences where the topic should be a natural one. For example, no consideration was given to transportation at the recent annual Boston Conference on Distribution, nor at the Distribution Conference sponsored by the Chamber of Commerce of the United States, held in October at New York. None of the links in the chain of distribution can be neglected, if distribution is to be made more efficient and economical, least of all the link of transportation.

It is amazing that such groups did not include transportation on their programs, and it is surprising also that many business publications fail to give it the space it deserves. A notable exception to this is *D&W*, which has always been cognizant of the complete circle of distribution from producer to consumer, and has consistently covered all phases of the actual physical handling of goods. *D&W*'s understanding of the overall distribution problem was shown very clearly in its editorial, "Basic Needs for Better Distribution," published in its August, 1944 issue. This might well be considered as a guide for any intensive study of the subject.

Transportation and Handling

Transportation, of course, without question is a major factor in distribution. Transportation, as I see it, includes both the actual movement of goods from point of origin to point of destination, as well as all related handling. Those who think of transportation costs only in terms of the span from shipping platform to consignee's platform are not covering all the ground. The real cost must be measured from the time the goods leave the production line to the time they are used by the consumer. Every handling which helps to bridge that gap, logically, is a part of the transportation picture.

In covering all phases of transportation, we must think of the belt lines and overhead carrier systems used to convey goods after they are completed, the industrial trucks and tractors with their various mechanical lifting and hauling devices, the hand-propelled trucks and wheelbarrows, the cranes and hoists used to load and unload goods, in short, all the materials handling equipment in the movement of goods from point of origin to final destination. Aside from the modern equipment used to expedite handling, we should consider also ways and means to eliminate handling wherever possible.

To-day, from the standpoint of the extensive movement of goods, we must consider the railroads, the truck lines, airlines, pipe lines, inland waterways, coastwise shipping, trans-ocean ship-

The Transportation Link In the Chain of Distribution

Transportation, broadly considered, includes both the actual movement of goods from point of origin to point of destination, as well as all related handling. Those who think of transportation costs only in terms of the span from shipping platform to consignee's platform are not covering all the ground. The real cost must be measured from the time goods leave the production line until they are in the hands of the consumer.

By GEORGE H. SCRAGG

Director,
Advertising and Sales Promotion,
The White Motor Co.

• • •

ping, and all the attendant handling operations. Each of these media has its natural place of service, although the picture is always changing. This is evident in the growth of the air-lines and the pipe lines which today are highly important in our distribution system. In some respects, of

course, these carriers are competitive to other forms of transportation. What of it? In the final analysis, the carriers which can serve public needs best will be chosen. That is why we have made such progress under the American system of free competition. In order to gain a place in the sun, products or services must demonstrate their value.

A Cardinal Principle

It may be taken as a cardinal principle that any tool, whether of production or distribution, that tends to reduce costs is a factor to be reckoned with. Harking back to the early days of the machine age, we recall that many people felt the new machines and methods would hurt wages and employment and, consequently, fought such advances. But higher-production machines enabled industry to reduce prices, and lower prices encouraged more buying which, in turn, boosted production quotas and made it possible for more people to be employed.

The same philosophy holds true in distribution. Progress cannot be opposed successfully for long. It would be most unwise for motor carriers, for instance, in the belief that such rates would divert more business to the truck lines. Higher railroad rates would add to the cost of goods and this would reduce demand. Less demand would mean less need for shipping facilities generally, including the facilities of the motor carriers.

We know to what degree, in days gone by, the waterways and railroads looked upon motor transportation as a competitor. The railroads in England influenced legislation to prohibit the use of highway vehicles, with the result that, for a time, both domestic and foreign business in England suffered. Today, most people appreciate the tonnage that is supplied to the railroads and inland waterways by motor trucks serving as feeder lines

G. H. S.



Maj. Scragg is well known in the automotive, aviation and advertising fields. He was a flier and aircraft designer before the First World War, and during the war he became chief technical officer, Night Bombardment Section, A. E. F.

He is a major in the Civil Air Patrol and public relations officer of the Ohio Wing. He is a trustee of the Early Birds, chairman of the Aviation Division, Cleveland Engineering Society, and member of the Quiet Birdmen, Wings Club of New York, Society of Automotive Engineers, Cleveland Advertising Club and other organizations.

Throughout most of his business career he has been concerned with distribution problems. With his background and knowledge of the subject, we believe he has some very pertinent and practical suggestions to offer industry.—The Editor.

Tgoes without saying that we must get our distribution costs down through efficient methods if we are to have a balanced economy and a volume of business that will assure prosperity.

beyond the radius previously served by horse-drawn vehicles.

In like manner we should accept the pipe lines and any other new methods as allies rather than as competitors to existing transportation media, because if such methods represent a better way of getting materials across the country, then we stand to benefit from lower prices and proportionately increased demand. In the case of fuels conveyed by pipe line, there is a direct saving to the truck lines which are big customers of fuels so transported.

It is certain that every one of our existing forms of transportation will have its advantages in one way or another, so that each will get a share of the business. Developments in one field spur greater competitive efforts in other fields and, thereby, distribution becomes more efficient and economical. Through coordination, rather than integration, of transportation facilities, it should be possible to offer better service at lower cost, which is the real goal of distribution.

Merchant Marine

At the conclusion of the war, America will have a tremendous merchant marine, an inventory of ships and trained manpower such as she never had before. This should give us a big advantage in world trade. It is quite obvious that such a fleet will form a powerful link between the United States and other countries. Our ships should be able to compete with foreign ships, even with their lower labor costs, if we can assure full loads and no delays by more efficient handling. Low cost land transportation will be one of the big factors in keeping the overall cost of shipping down. This will be reflected in the total cost of the commodity, and the resulting demand will boost tonnage requirements to keep the cycle of benefits moving. The fact that most of our ships were built for, and have served, another purpose means that we will have lower depreciation costs on our vessels than will other countries which may build new ships solely for postwar use.

Despite the fact that we shall witness a mushroom growth in trans-ocean air cargo service, it will have no great effect on transportation by water, because the large capacity of ships will be in demand. Again, in the final analysis, the value of the time saved will determine the amount of shipments by air. In some cases, particularly where goods are to be shipped to inaccessible spots, the saving of many rehandlings may be a deciding point. It is impractical, of course, for bulk products to be shipped in quantity by air. For such commodities, shipments by water will in no way suffer. Rail, highway, and air carriers will be called upon to handle the cargo to and from the docks. Shipyards and ports have been built up on

both coasts, and handling facilities will be of the best.

Railroads

With the job that the railroads have done in serving the war efforts, they are destined to benefit from the improvements in schedules and handling methods they have employed to accomplish it. Since they have been operating at capacity without being able to make any substantial replacements, it is safe to say that they will be ready to start a big rebuilding campaign, to put new and better rolling stock into service, to improve their road beds, to reduce grades, to build new tunnels and bridges, and to do many other things for the improvement of service.

The fact that they are in a fairly good financial position as a result of heavy wartime business means that they can well carry out such a program. They merely await the let-up of wartime strain to throw out the old and install the new.

Pipe Lines

Pipe line accomplishments of the past year include the completion of "Big Inch," which will assure a heavy

EVERY one of our existing forms of transportation will have its advantages in one way or another, so that each will get a share of the business. Developments in one field spur greater competitive efforts in other fields, and distribution, thereby, becomes more efficient and economical. Through coordination, rather than integration, of transportation facilities, it should be possible to offer better service at lower cost, which is the real goal of distribution.

flow of petroleum from the Texas oil fields to the East Coast. More recently the last link of the 24-in. gas main from the Texas fields to the industrial areas of Western Pennsylvania and Northern Ohio was finished. This 1265-mile line can deliver 200,000,000 ft. of fuel per day, and under normal conditions gas will flow the length of the line in six days.

The effect of these conveyors on business and industry is beyond average comprehension. Fuel supplies assure the operation both of the manufacturing machinery and the equipment used to convey finished products to points of need.

Airlines

The progress of air cargo is attracting all eyes these days, and appropriately so. Hitherto planes have carried fast freight only in connection with passenger traffic. Today, American Airlines is operating many all-cargo planes on a regularly scheduled basis. As more equipment becomes available, we can expect that all the airlines will build up their freight service to a point where it will be a real factor in the distribution of goods. Naturally the lessons of war have had a tremendous influence on plane design, and planes of great size are in the offing.

Much, of course, remains to be done

before the greater picture of air cargo movement is developed. Adaptable planes, extended air fields, necessary emergency fields between, bigger freight terminals, and all the buildings necessary to the housing and maintenance of planes must be made available. These things cannot be brought into being overnight. Schedules and operating methods will require considerable planning.

Ground Handling

Provisions for the ground handling of air cargo are vitally important, because service must be measured on a shipper-to-receiver basis rather than port-to-port. Since the time advantage will be the greatest stock in trade for air cargo, it cannot be allowed to deteriorate either before or after flight. Fast handling on the ground as well as in the air must be assured. This means that proper arrangements must be made for deliveries and pickups at the airports and over the areas served. Economy as well as speed must be considered in the choice and number of motor vehicles to make the port contacts and in those which must fan out over the surrounding countryside to the towns and cities served by the airport. Schedules must be tight.

Since existing truck lines are fully equipped and capable of handling the ground transportation phase of air cargo, it is most logical that they should handle this business. American Airlines has already made contracts with ground haulers in many cities, and it is felt that other airlines will do likewise. Airlines have been wise both in realizing that these contractors are specialists in ground transportation and in their decision to use such facilities rather than to develop their own at considerable cost. They realize that for some time to come their traffic over such a spread of ground routes would not justify an independent fleet.

It now remains for the established truckers to justify the confidence placed in them and to give air cargo the speedy attention it must have, for it is only by realization that "time is of the essence" that air cargo can succeed. Actually, these two forms of transportation should be regarded as coordinating links rather than competing methods. Each may well be said to create business for the other to a large extent. Beyond that, the choice will be determined by the need. Truck lines may well take a leaf from the airline policy book and not attempt to extend their operations into the air field, even if they should be permitted, for the same economic reasons that have guided the decision of the airlines.

Highway Carriers

Motor transportation has more to offer today than ever before because wartime developments have been tre-

(Continued on page 86)

PATRIOTISM is a matter of working together for the good of the country at any time, not just a matter of offering service in time of war.

air cargo
daptable
cessary
bigger
e building
e made
not be
Sched-
will re-

handling
ant, be-
ups at
r than
vantage
ade for
to de-
flight.
as well
This
s must
ups at
served.
ust be
number
port
st fan
ryside
to agriculture and industry.

fully
g the
f air
they
merican
racts
ties.
will
wise
trac-
trans-
use
develop
They
come
d of
an

Expanding transportation has stimulated the flow of goods in commerce in such volume and at such low cost that the people of this country have enjoyed for a half-century a standard of living unparalleled by any other nation in history.

And when war jeopardized this standard, it was the American system of transportation, proving itself capable of moving on time the production of American industry, that has become a decisive factor in the forthcoming victory.

Origin of the Air Brake

On a trip between Troy and Schenectady a wreck delayed the fu-



This 75th anniversary painting depicts the first train equipped with an air brake in 1869. The engineer reached for the strange new brake handle and pulled "without much confidence." The locomotive came to a stop four feet from the stalled wagon.

THIS is the story of the invention that revolutionized railroad transportation throughout the world, that has been adapted to surface and subway cars, and that is contributing new safety to automotive vehicles traveling the nation's highways.

It is the story of a living invention that started out to solve one problem but whose field of usefulness has been ever-expanding for three-quarters of a century.

It is the story of the air brake. And the reason for telling it now is that the air brake has now been in use 75 years.

It is also the story of the Westinghouse Air Brake Co., that, in typically American fashion, pioneered and continually expanded production until its total output of air brakes became more than sufficient to equip a train stretching twice around the world.

The major importance of the air brake is that it made transportation safer, more dependable and more economical. It conferred on trains, electric railway cars, and heavy-duty buses and trucks the freedom to go and go fast by giving them the power to stop, and so contributed mightily to the opening up of a vast country to agriculture and industry.

Expanding transportation has stimulated the flow of goods in commerce in such volume and at such low cost that the people of this country have enjoyed for a half-century a standard of living unparalleled by any other nation in history.

And when war jeopardized this standard, it was the American system of transportation, proving itself capable of moving on time the production of American industry, that has become a decisive factor in the forthcoming victory.

The Air Brake Celebrates Its 75th Anniversary

The major importance of the air brake is that it has made transportation safer, more efficient and more economical. Trains, trucks and, since the war, ships have been equipped with air brakes. Modern signaling systems are possible because of George Westinghouse's invention of the air brake in 1869.

By H. B. ANDERSON

○ ○ ○

ture inventor. Two freight trains had crashed into each other on a smooth, level, straight stretch of track in broad daylight.

"The engineers saw each other and tried to stop but there wasn't time," George Westinghouse was told.

Emergency stopping was impossible at that time because each car of a train had to be braked individually. Armed with a pick handle the brakeman rushed from car to car and laboriously set the hand brakes. It took a lot of muscle, a lot of brakemen and considerable time to stop a train going twenty miles an hour.

From that day on George Westinghouse worked to design a brake that would make rail transportation safer. He tried and discarded steam and electricity as power sources before he got the idea for an air brake from a magazine article that described how engineers, in building Mont Cenis tun-

nel through the Alps in Italy, had constructed a 3000-ft. pipe line through the mountain and pumped compressed air through it to power the rock drills.

At that time, no compressed air apparatus of importance had been put in operation in this country, but Westinghouse saw the possibilities. Compressed air could be piped, had been piped, 3000 ft., many times farther than the longest train of that day. It offered the simple, dependable form of power he had been seeking.

Patent No. 5504 was issued to George Westinghouse April 13, 1869. He had worked two years on his design. He had enlisted the financial support of a Pittsburgh foundry executive who financed the building of demonstration equipment. Now he was ready for a test run.

The First Test Run

The inventor was only 23 years old then, but he persuaded the superintendent of what is now the Panhandle division of the Pennsylvania Railroad to arrange the first test run.

The inspiration for his air brake came to George Westinghouse in a magazine article describing the building of the Mont Cenis tunnel through the Alps in Italy. To power the rock drills, engineers there had piped compressed air 3,000 ft. into the mountains.



The Steubenville, Ohio, accommodation train (locomotive, tender and three passenger cars) was equipped with the new brake. Reports of that time tell how the train pulled out of the Pittsburgh terminal with a number of railroad men aboard to watch the demonstration. As it emerged from Grant's Hill tunnel, the engineer was horrified to see a huckster's cart on the tracks two city blocks away.

The driver applied his whip. The horses reared and stalled the cart directly in the path of the approaching train. The engineer, "without much faith," reached for the strange brake handle and pulled. The brakes took hold suddenly and when the passengers rushed from the cars, they saw the locomotive stopped four feet from the cart.

There could have been no more dramatic test had it been planned. It was the first successful emergency stop in railroad history.

It brought fame to the brake's inventor, it launched the Westinghouse Air Brake Co. on its eventful manufacturing career, it gave new impetus

to railroading, and it helped create gainful employment for hundreds of thousands in both industry and agriculture.

Worldwide Recognition

The air brake fanned public imagination from the start. Thousands of men and women had invested in the various railroads and this new safety control enlarged the horizon of their hopes.

Its fame was not restricted to this country. A Belgian railway adopted it as early as 1872 and one in Mexico in 1873. The French quickly specified it as standard equipment on all the passenger cars in that country.

At home, demand for air brakes swiftly outdistanced the productive capacity of the original shops at the corner of Pittsburgh's 25th St. and Liberty Ave. Larger quarters were found.

Old-timers recall the concern that the men in the air brake shops felt over their tremendous production. It was a common pastime at the lunch

hour for them to figure out how long their jobs could last on such a basis. They would divide the combined number of unequipped railroad cars plus normal replacements by the thousand sets of brakes being produced each day, and attempt to determine the exact hour of the day, month and year that this nation's need of air brakes would be everlastingly filled.

What they failed to take into consideration was that the nation's growth and expanding agricultural and industrial production required more and more railway cars. And then as now, increasing train size and speed necessitated improved braking equipment. The advantages of the air brake extended its market into all branches of transportation faster than the factory could produce the equipment.

But the air brake got ahead in the world only by competing successfully against every other type of train-stopping device that the inventive mind of man could conceive.

Railroads conducted tests every few years in which all brakes on the market vied in stopping performance under a fixed set of conditions. It was not until the trials of 1887, at Burlington, Ia., that the supremacy of the air brake was established permanently.

Evolution of the Air Brake

The Smithsonian Institute considers the invention significant enough to honor it with a permanent exhibit along with the first electric light, the first automobile, and the first airplane.

The Number One improvement in the air brake solved for all time what must have been close to the Number One nightmare of the railroads of that day, runaway cars. Couplers were not too reliable then and cars frequently became detached. This broke the pipe line, let the air escape and braking power was gone.

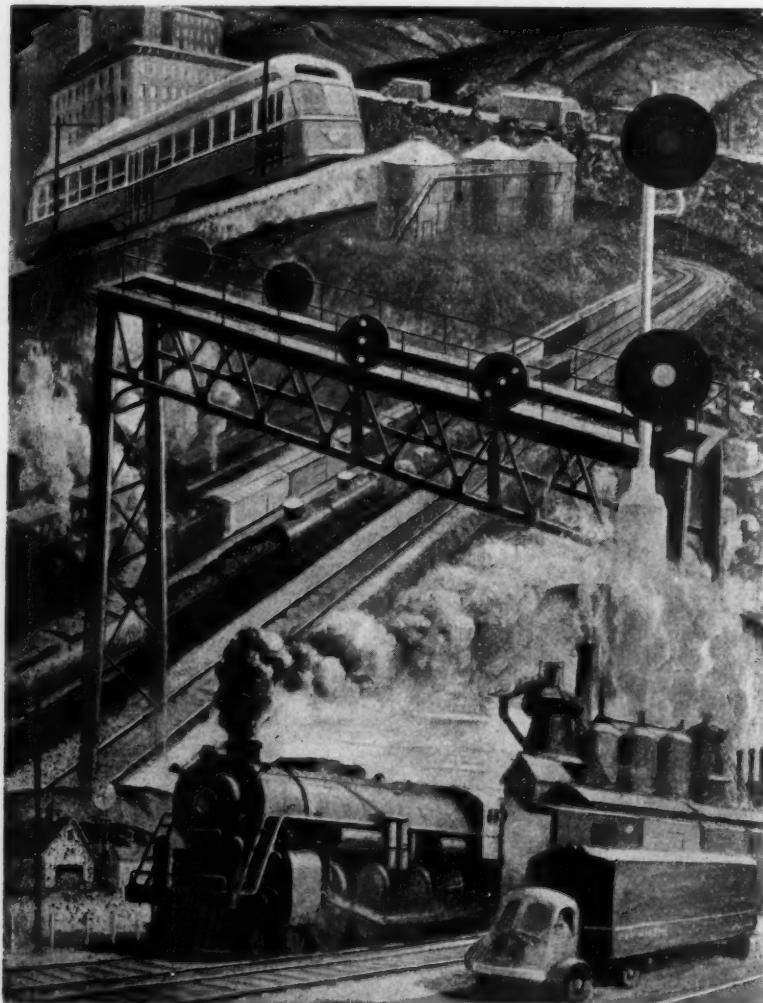
Westinghouse and his engineers developed an automatic device called a "triple valve" and they located one of these and an air reservoir on each car in addition to the main one on the locomotive. All the while a train was in motion, the pipe line and the car reservoirs were charged with compressed air. When the engineer wanted to stop the train, instead of letting air into the pipe line as before, he let the air out. The reduced pressure activated the triple valve which automatically turned the air from the car reservoir into the braking cylinder.

The ingenious part of this arrangement was that, when a train broke in two, the automatic feature caused both parted sections to stop promptly. This safety feature is still acclaimed as one of the great inventions of all times.

Until the late 1880's air brake engineers failed to solve the problem of safely controlling freight trains which had by then grown to 50-car length. Normal stops could be negotiated satisfactorily but the emergency stop consisted of a series of shocks that endangered the contents of the cars and the cars themselves.

The difficulty was the time required
(Continued on page 88)

This picture conveys something of the significance of the air brake. Originally conceived to give emergency stopping power to trains, it has been adapted to almost all forms of transportation.



By GEORGE F. BAUER
International Trade Consultant

○ ○ ○

A CARTEL differs from an association for export in which the firms of but one nation participate. It is confused and inadequate reasoning to regard a cartel and an export association, as set up under the Webb-Pomerene Act, under one heading. Neither should it be inferred that the Webb-Pomerene Act was designed to foster cartels.

Export Associations

Fundamentally, the purposes of the Webb-Pomerene Act are consistent with the objective of making more products available to more people everywhere. The Export Association, voluntarily formed under this act, can, by permitted cooperation of American firms domestically competitive, effect efficiency and economy in sales promotion, development of world markets, in shipping and in servicing, and it can pass economies on to the final consumer.

The Export Association is not a monopoly; for it comprises firms of the United States only. It is true that the American firms in the Export Association do not have to compete among themselves, but the Association competes strenuously with the export associations of other nations, and even with foreign cartels representing combined national groups.

In the thirties, European automobile manufacturers inclined toward the cartel idea. It was thought that sections of the world could be allocated as sales outlets to specific manufacturing nations. The proposal was never realized in practice. In the United States, there was public, legal and industrial opposition to participation in any such arrangement.

Business in our country has been developed on the basis of free enterprise and open competition. Public sentiment, seemingly, is in favor of continuing our development along those lines.

Competition Desirable

Industrialists also have been convinced of the advantages of competition as a means of stimulating improvements and effecting economies which could be passed on to the final consumer. This policy of small profit per unit and many small profits through many sales has been the economic foundation of the mass production industries in the United States. This competitive factor, with its beneficial effect on volume of sales, tends to be subordinated whenever plans for division of sales territories among manufacturing nations are brought up. On that one point alone, any cartel program for an American industry, such as that proposed for motor vehicles, is likely to face serious opposition.

International cartels tend to over-stress safeguards to profits of manufacturers in various national groups. There usually seems to be a feeling that public absorption of goods represents rigid totals to be divided according to some arbitrary quota, or

Cartels and Their Effects On Distribution

A NUMBER of people are advocating the establishment of cartels as a proper method of conducting international trade. The point is debatable. Are people benefited by cartels? Do cartels increase the use and consumption of goods, and, thereby, stimulate job-creating activities of production and distribution?

If the answer is yes, cartels may warrant public support. If the answer is no, caution would seem advisable. Just because certain nations believe in cartels on a worldwide basis is no reason why the United States should participate in them.

A cartel is a manufacturers' combination. It is European in origin. An international cartel is a contractual agreement between independent establishments in different nations regulating the amount of output for each establishment, and in certain cases also the prices. In some countries cartels have tended to become government monopolies.

division of territories, without regard to the capacities of the manufacturers in the various national groups. The efficiency of a group, or of an individual manufacturer, can expect little encouragement under such a restrictive system.

Consumer Benefits Doubtful

Economies resulting from competition in manufacturing and distribution, if possible under cartels, are not likely to be passed on to consumers. Rather than larger total profits as a result of mass sales, the cartel objective seems to aim at large unit profit and consequent small sales volume. To our way of thinking, this is unsatisfactory all around.

Consequently, it can be seriously questioned whether cartels that limit international competition are advantageous, even to the participating manufacturers, collectively and individually. If a cartel prevents development of mass sales, and discourages passing on economies to consumers, it would seem to be a defective instrument both for the members of the industry using it and for the general public everywhere.

Cartels and Associations

Cartelization is a European idea, whereas the idea of export associations, as authorized by the Webb-Pomerene Act, is an American conception. In the first instance, the world is divided into privileged areas for specific national groups; in the second, the world is open to every firm, whether or not a member of an export association. The difference is absence of competition in given territories, among national groups or individual manufacturers, on one hand; on the other, there is keen competition among manufacturers, or of the export association of an industry in one nation against similar associations of other countries.

The demarcation between international cartels and national associations for export is one of degree of competition. International cartels establish rigid limitations; national associations for export have latitude and flexibility.

Government Cartels

Another feature is developing with respect to cartels as opposed to export associations. In certain European nations, the cartel has been given legal status. Cartel contracts have been held binding by national courts in several instances.

In other cases, cartels are government monopolies. Purchasers when dealing with some cartel organizations are finding that they are not negotiating with a combine of producers, but with a governmental agency.

Thus, cartels are becoming government sales control agencies on one hand, or a government purchasing commission on the other. The trade grouping previously inherent in the cartel is giving way to governmental organization. It is the equivalent of government in business on an international scale.

If the trend toward government sales and purchase controls in the form of cartels continues, the participating members will no longer be national groups of manufacturers but the governments of particular nations.

This situation might bring with it the centralization of all international purchases of a given country through some official agency. In the case of Soviet Russia, this centralization is effected through the Amtorg Corp.

Restricted Distribution

The sale of American goods cannot be made direct to distributors or retailers in Russia but must be presented through the Amtorg Corp. Regardless of the number of American suppliers of goods, there is but one

distributor for them in Russia and that is the Amtorg Corp.

With reference to all imports into Russia, the Soviet Government decides through the Amtorg Corp. what make, or makes, of products shall be purchased. There is no competitive distributor outlet in Russia. Amtorg Corp. is the only one.

In an American industry there may be as many as 35 producers. Some of them are large; others are small. Normally, a smaller one would have a chance to develop direct outlets for his goods just as well as a large concern.

There are instances of companies that succeeded in overseas sales better than in domestic trade. Any American company, depending on ability and not size, was able to create outlets not only in the main cities of a foreign country, but also in some of the lesser communities. Success was dependent on the particular product and the ability of the export management.

Open Distribution

In the illustration above, 35 producers might have established direct channels of distribution in a foreign nation. As result of this competition consumers in the particular country naturally benefit.

If an official agency is established for the particular country and the purchases are limited by the officials in it to products of 3 or 4 manufacturers, it is evident that competition in the distribution channels of that country will diminish. The tendency will be toward rigid procedure, limited selection, fixed prices and little regard for individual tastes and preference.

Economies, if any, are not likely to be passed on to consumers. Prosperity in terms of abundance of goods among the masses is scarcely be promoted by limiting competition.

Knowing of the bottle-neck that exists in connection with sales to a country using a "cartelized" purchasing arrangement, only such manufacturers as feel themselves in a particularly favorable situation are likely to offer their wares; the others, inhibited by red tape, handicapped by productive capacity or some other limitation, are not likely to get anywhere by offering their products to the "centralized" purchasing agency.

Two disadvantages are the result. Fewer suppliers compete for the business. With fewer suppliers competing, in the long run, it is doubtful whether concentrated purchases will prove as efficient or economical as some profess to believe.

Sales Cartels

Cartelized purchasing may show another disadvantage. Already there is agitation to permit cartelized sales by American producers, or participation in international combines, to eliminate competition among individual manufacturers when offering goods to countries where officially centralized purchasing agencies have been set up.

Government intervention in what normally is private trade would follow. The 35 American manufacturers in a single industry might combine, with government approval, and agree that sales are not to be made to the official purchasing agency of another country except through the American combine, or a cartel of which the

United States is a member.

A foreign country, consequently, could purchase only the makes of products agreed to by the American combine, or cartel. A composite product beneficial to all of the 35 manufacturers would have to be produced or some quota arrangements would have to be set up.

Theory and Practice

At best it would be a makeshift. Even with raw materials, an agreement on a composite specification of a product for adherence by a number of producers, would be difficult and with manufactured goods, practically impossible. Official directives would replace natural selections under the competitive systems. Divisions of a quota satisfactory to all manufacturers in a group affected by it has never been accomplished.

While theoretically, officially centralized purchasing of one country might be offset by officially centralized selling in another, the economics of competitive trade would hardly be of benefit to consumers. Natural standards of living with abundance and varieties of goods would be seriously jeopardized.

Before endeavoring to answer centralized purchasing with centralized selling it may be well to stop and review the consequences and ascertain whether through that move we would draw closer to or farther from what Eric A. Johnston, president of the Chamber of Commerce of the United States, calls popular capitalism, or a capitalism of which the prime purpose is to benefit all people, and not just one segment, be it a private or a government group.

Air Cargo Potentials In Latin America

AIR CARGO POTENTIALS BETWEEN THE UNITED STATES AND LATIN AMERICAN COUNTRIES. Series prepared by Transportation Unit, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, Washington, D. C. Amos E. Taylor, director. 32 to 34 p. each. Tables and summaries. Inquiry Reference Service.

A series of releases on "Air Cargo Potentials between the United States and Latin American Countries" designed to help solve the problem of increasing the flow of trade between the U. S. and the Latin American Republic as well as accelerating trade's tempo in commodities where speed is essential, has been issued recently by the U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce.

Peru . . .

In the report on "Air Cargo Potentials Between the United States and Peru," it is stated that Peru, as one of the S. A. republics lying closest to the U. S., a factor contributing to its "relative large shipping trade with this country" should have a "proportionately greater" share of future air commerce with the U. S. than the republics south of her.

However, the report goes on to say that the "trade would offer greater opportunity to air carriers if there were not the large ratio of 168 to 1 existing between the value of exports and imports. This unbalance creates special financial problems which accompany one-way traffic movement . . .



"Types of commodities most likely to provide the best cargo for air shipments from the United States to Peru are aircraft engines and parts, women's silk hosiery, motion-picture films, yeast, radio equipment, typewriters, bathing suits, and phonograph records. Items best suited to move north from Peru to the U. S. are furs, silver manufactures, stamps, and platinum ores."

Venezuela . . .

Prospects of air cargo trade between the United States and Venezuela, considering proximity and, also, in view of the South American country's economic dependence upon the U. S., are exceedingly good. However, trade volume will be slightly offset by an "unbalanced trade, a disadvantage shared to some extent by nearly all South American countries. Venezuela's imports from the United States in 1939 were valued at \$61,588,221 as against exports with a value of only \$23,414,943. The resultant ratio of 2.6 to 1 is larger than that found for any of the other republics . . .

"Of 508 listed commodities valued at \$10,643,083 and weighing 39,013,165 lb., certain ones seem to be particularly suited to transport by air. Such exports are: women's hosiery, tooth brushes, dresses, radio-receiving sets, X-ray apparatus, motion-picture film, and popular phonograph records.

(Continued on page 89)

PAYLOAD IS PEOPLE OR PACKAGES



A most cursory study of the Constellation's performance

records indicates immediately that it can never

be considered a one-job transport. *Versatility* is the word.

Interiorwise, for instance, the Constellation is easily adapted to

meet the commercial demand of the specific route,

to carry its payload in terms of people or packages or both.

Flightwise, it is able to operate most economically
over the specific distance required—whether transcontinentally
or on flights as short as 100 miles. Indeed, versatility is the word.

Express, sleeper or inter-city local, the Constellation is designed
to solve *special* problems of the individual airline.

distributor for them in Russia and that is the Amtorg Corp.

With reference to all imports into Russia, the Soviet Government decides through the Amtorg Corp. what make, or makes, of products shall be purchased. There is no competitive distributor outlet in Russia. Amtorg Corp. is the only one.

In an American industry there may be as many as 35 producers. Some of them are large; others are small. Normally, a smaller one would have a chance to develop direct outlets for his goods just as well as a large concern.

There are instances of companies that succeed in overseas sales better than in domestic trade. Any American company, depending on ability and not size, was able to create outlets not only in the main cities of a foreign country, but also in some of the lesser communities. Success was dependent on the particular product and the ability of the export management.

Open Distribution

In the illustration above, 35 producers might have established direct channels of distribution in a foreign nation. As result of this competition consumers in the particular country naturally benefit.

If an official agency is established for the particular country and the purchases are limited by the officials in it to products of 3 or 4 manufacturers, it is evident that competition in the distribution channels of that country will diminish. The tendency will be toward rigid procedure, limited selection, fixed prices and little regard for individual tastes and pref-

erences. Economies, if any, are not likely to be passed on to consumers. Prosperity in terms of abundance of goods among the masses is scarcely promoted by limiting competition.

Knowing of the bottle-neck that exists in connection with sales to a country using a "cartelized" purchasing arrangement, only such manufacturers as feel themselves in a particularly favorable situation are likely to offer their wares; the others, inhibited by red tape, handicapped by productive capacity or some other limitation, are not likely to get anywhere by offering their products to the "centralized" purchasing agency.

Two disadvantages are the result. Fewer suppliers compete for the business. With fewer suppliers competing, in the long run, it is doubtful whether concentrated purchases will prove as efficient or economical as some profess to believe.

Sales Cartels

Cartelized purchasing may show another disadvantage. Already there is agitation to permit cartelized sales by American producers, or participation in international combines, to eliminate competition among individual manufacturers when offering goods to countries where officially centralized purchasing agencies have been set up.

Government intervention in what normally is private trade would follow. The 35 American manufacturers in a single industry might combine, with government approval, and agree that sales are not to be made to the official purchasing agency of another country except through the American combine, or a cartel of which the

United States is a member.

A foreign country, consequently, could purchase only the makes of products agreed to by the American combine, or cartel. A composite product beneficial to all of the 35 manufacturers would have to be produced or some quota arrangements would have to be set up.

Theory and Practice

At best it would be a makeshift. Even with raw materials, an agreement on a composite specification of a product for adherence by a number of producers, would be difficult and with manufactured goods, practically impossible. Official directives would replace natural selections under the competitive systems. Divisions of a quota satisfactory to all manufacturers in a group affected by it has never been accomplished.

While theoretically, officially centralized purchasing of one country might be offset by officially centralized selling in another, the economies of competitive trade would hardly be of benefit to consumers. Natural standards of living with abundance and varieties of goods would be seriously jeopardized.

Before endeavoring to answer cartelized purchasing with cartelized selling it may be well to stop and review the consequences and ascertain whether through that move we would draw closer to or farther from what Eric A. Johnston, president of the Chamber of Commerce of the United States, calls popular capitalism, or a capitalism of which the prime purpose is to benefit all people, and not just one segment, be it a private or a government group.

Air Cargo Potentials In Latin America

AIR CARGO POTENTIALS BETWEEN THE UNITED STATES AND LATIN AMERICAN COUNTRIES. Series prepared by Transportation Unit, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, Washington, D. C. Amos E. Taylor, director. 32 to 34 p. each. Tables and summaries. Inquiry Reference Service.

A series of releases on "Air Cargo Potentials between the United States and Latin American Countries" designed to help solve the problem of increasing the flow of trade between the U. S. and the Latin American Republic as well as accelerating trade's tempo in commodities where speed is essential, has been issued recently by the U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce.

Peru . . .

In the report on "Air Cargo Potentials Between the United States and Peru," it is stated that Peru, as one of the S. A. republics lying closest to the U. S., a factor contributing to its "relative large shipping trade with this country" should have a "proportionately greater" share of future air commerce with the U. S. than the republics south of her.

However, the report goes on to say that the "trade would offer greater opportunity to air carriers if there were not the large ratio of 168 to 1 existing between the value of exports and imports. This unbalance creates special financial problems which accompany one-way traffic movement . . .



"Types of commodities most likely to provide the best cargo for air shipments from the United States to Peru are aircraft engines and parts, women's silk hosiery, motion-picture films, yeast, radio equipment, typewriters, bathing suits, and phonograph records. Items best suited to move north from Peru to the U. S. are furs, silver manufactures, stamps, and platinum ores."

Venezuela . . .

Prospects of air cargo trade between the United States and Venezuela, considering proximity and, also, in view of the South American country's economic dependence upon the U. S., are exceedingly good. However, trade volume will be slightly offset by an "unbalanced trade, a disadvantage shared to some extent by nearly all South American countries. Venezuela's imports from the United States in 1939 were valued at \$61,588,221 as against exports with a value of only \$23,414,943. The resultant ratio of 2.6 to 1 is larger than that found for any of the other republics . . .

"Of 508 listed commodities valued at \$10,643,083 and weighing 39,013-165 lb., certain ones seem to be particularly suited to transport by air. Such exports are: women's hosiery, tooth brushes, dresses, radio-receiving sets, X-ray apparatus, motion-picture film, and popular phonograph records.

(Continued on page 89)

PAYOUT IS PEOPLE OR PACKAGES



A most cursory study of the Constellation's performance records indicates immediately that it can never be considered a one-job transport. *Versatility* is the word. Interiorwise, for instance, the Constellation is easily adapted to meet the commercial demand of the specific route, to carry its payload in terms of people or packages or both. Flightwise, it is able to operate most economically over the specific distance required—whether transcontinentally or on flights as short as 100 miles. Indeed, versatility is the word. Express, sleeper or inter-city local, the Constellation is designed to solve *special* problems of the individual airline.

The Lockheed Constellation

SETS THESE NEW WORLD STANDARDS

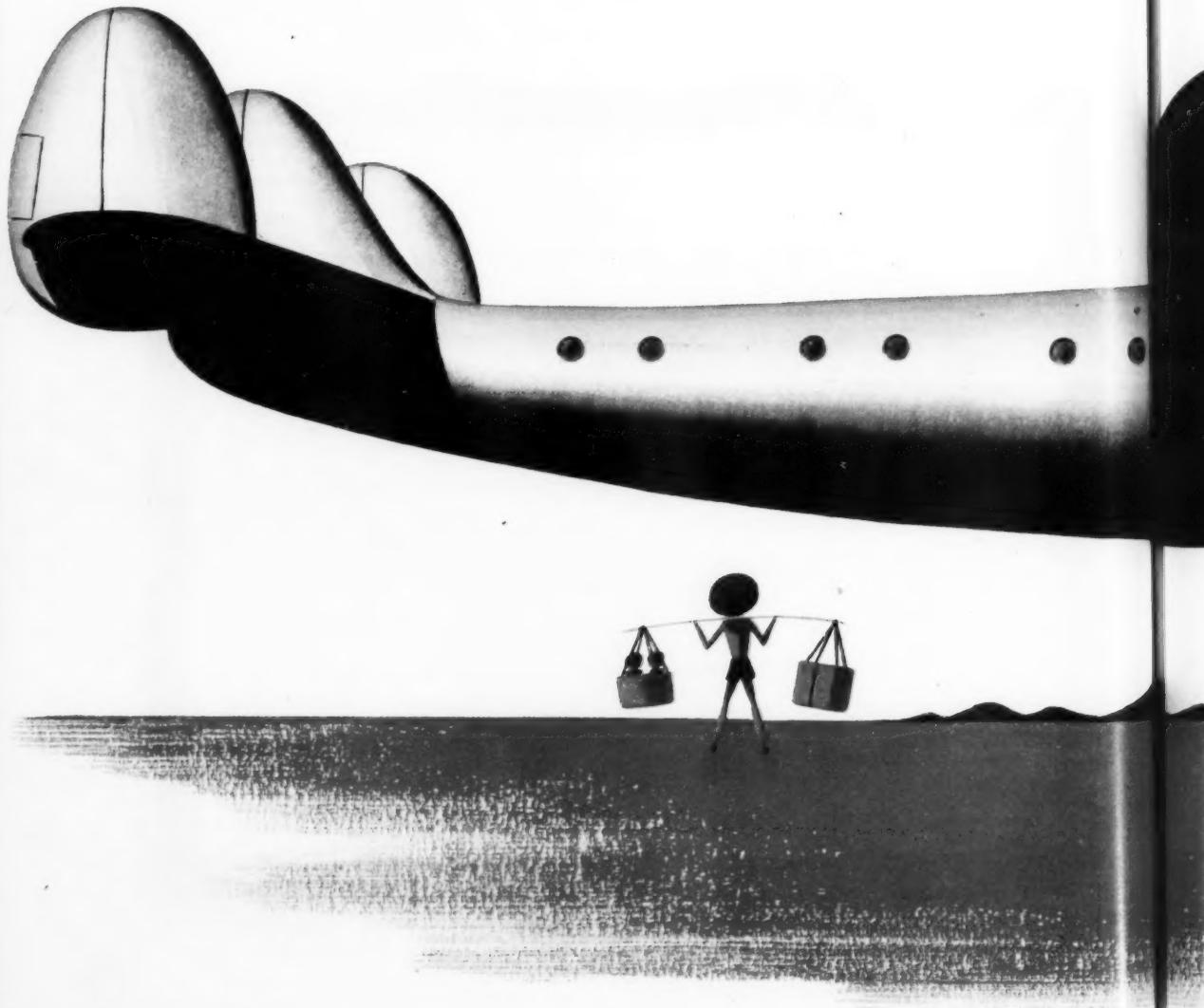
Biggest load-carrying capacity of any transport

Longest range of any transport ✶ Fastest speed of any transport

Greatest rate of climb of any transport ✶ Highest cruising altitude of any transport

And these performances make the Constellation

the safest of any transport



Leadership

IN LOAD-CARRYING CAPACITY

Lockheed's Constellation is a big plane—big enough, in fact, to carry 64 passengers and their baggage. In addition, it has adequate space for mail, express and cargo. Two compartments totaling nearly 500 cubic feet are available and may be loaded and unloaded underneath the plane. Revenue loads of approximately 18,000 pounds can be carried easily by the Constellation on medium-distance operations.





Q U E S T I O N S

Q. Are oxygen masks ever necessary when flying in the Constellation? —M. G., Maplewood, N.J.

A. *No. Constellation passengers never go above 8,000 feet even if the plane's altitude is as high as 20,000 feet. Automatic devices control density, heat, purity and circulation of air in passenger compartment.*

Q. Why does it take so long to develop a new transport? —John T., Baton Rouge, La.

A. *In addition to hundreds of thousands of man-hours of basic engineering, literally thousands of tests are made in the wind tunnel before an airplane is built. On the Constellation, a complete hydraulic system, duplicating the entire functional mechanism of the airplane, was constructed and tested for months to assure perfection of all parts.*

Q. Is there a reason for the sharklike profile of the Constellation fuselage? —Tom P., Los Angeles, Calif.

A. *Yes. Its airfoil design allows maximum length for full-round pressurized cabin. Down-sloping nose camber gives better pilot visibility—reduces landing gear weight.*

Q. You say the Constellation is a safe airplane. Why? —R. L., Springfield, Mass.

A. *In the first place four powerful engines mean greater safety. The Constellation will CLIMB on any two of them, land or take off fully loaded with a very short run, and is able to fly over bad weather. In addition to its great power there are scores of other safety features. A few of them are: tricycle landing gear, automatic fire extinguishers and power boosts on operating controls.*

Send in your questions . . . Address: Lockheed Aircraft Corporation, Department 69-55, Burbank, California

LOCKHEED

FOR NEW WORLD STANDARDS IN AIR TRANSPORTATION
LOOK TO *Lockheed* FOR LEADERSHIP

Lockheed Aircraft Corporation, Burbank, California

Ground Handling and Stowage Of Air Cargo

A NUMBER of engineers and architects, as well as airline executives have been talking and writing about the airport of the future, and they have shown railroad trains coming into these ports with resulting railroad sidings, etc.

We have consistently advocated a simpler system of handling at airports, namely "motairhandling," which would include the motor truck, the helicopter or autogyro, and other means of transporting loads quickly to the port from consolidation centers.

Recently, an engineer of Yale & Towne Mfg. Co., Mr. F. A. Vossenberg, prepared an excellent report which is available in its entirety by addressing Yale & Towne Mfg. Co., Philadelphia 24, Pa., and asking for "Air Cargo No. 1." We feel this report warrants our giving it more than the casual mention which we did last month, and we are reproducing here with permission two charts which are part of the report.

Note Chart No. 1, with the semi-trailer motor truck tractor unit backed up to the unloading shed or consolidation area at the airport, with the load having been assembled either

By MATTHEW W. POTTS
Materials Handling Editor

• • •

at the point of manufacture or elsewhere, in a unit load, so that it can be easily picked up and stored by a standard fork truck. With this operation, they can be easily stacked or placed on trailers for transportation out to the plane for loading with a fork truck as shown at the bottom of the illustration.

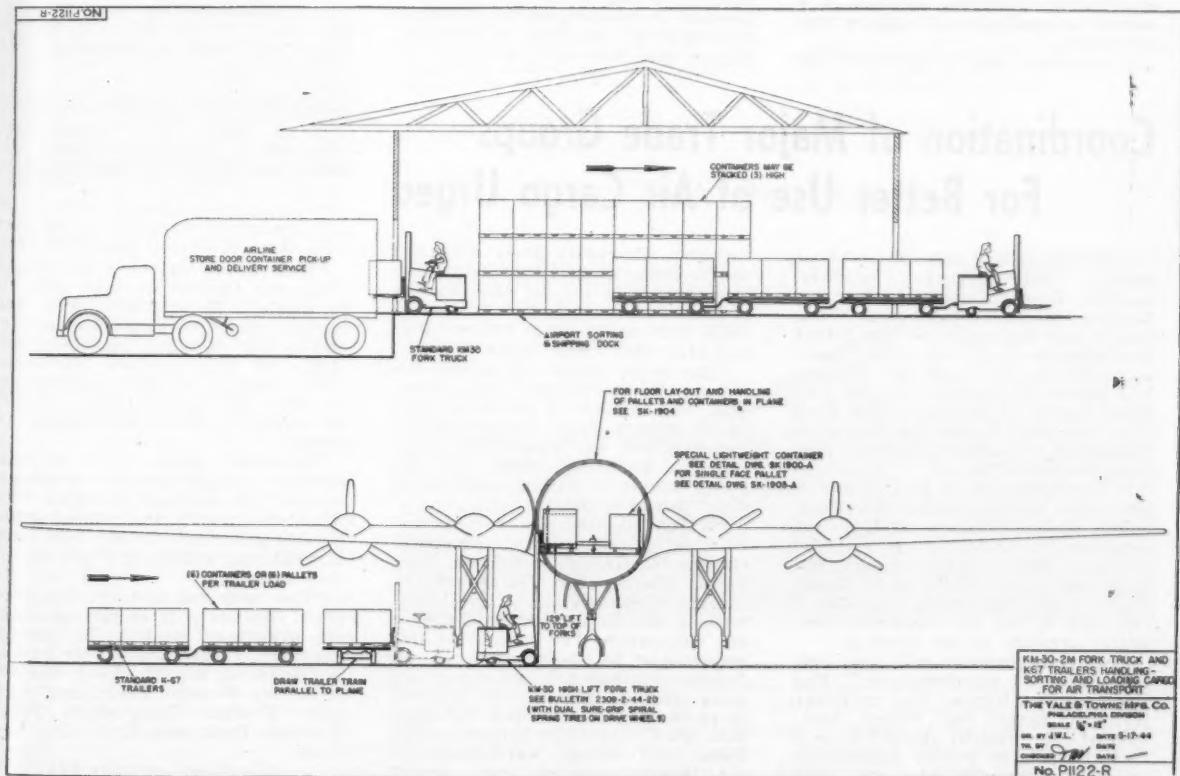
In order to expedite handling within the plane, and to show the load distribution and types of containers or unit loads and pallets suggested for use, as well as a special cargo hand lift truck, with multiple rubber wheels for easy handling over rough or irregular surfaces in the plane floor, we show Chart No. 2. This shows the distribution within the plane and the method of holding down the load while in transit.

Here is a complete system which not only shows how to bring the ma-

terials to the airport, but how to carry it to the plane and distribute it within the plane, and fasten it for flight. While it is not the only system that can be used, it probably is applicable for at least 50 per cent of all military and for 75 per cent of all postwar domestic and export air cargo work. In addition, containers have been designed, equipped with inside straps such as used on passenger seats which are adjustable so that the material can be strapped in place to keep it from moving inside of the container. These containers are also designed so that they can be knocked down when not in use and the four sizes of containers are interchangeable with each other, which will materially hold down repair costs, and aid in the reassembling of containers after return shipments. The method proposed for holding the loads in the plane is a series of clamps known as the "Evans Gear."

The idea of using containers within the plane has many advantages in reducing ground handling, reducing the amount of time required for stowing miscellaneous packages, which have to come off at some one point, and,

Chart No. 1



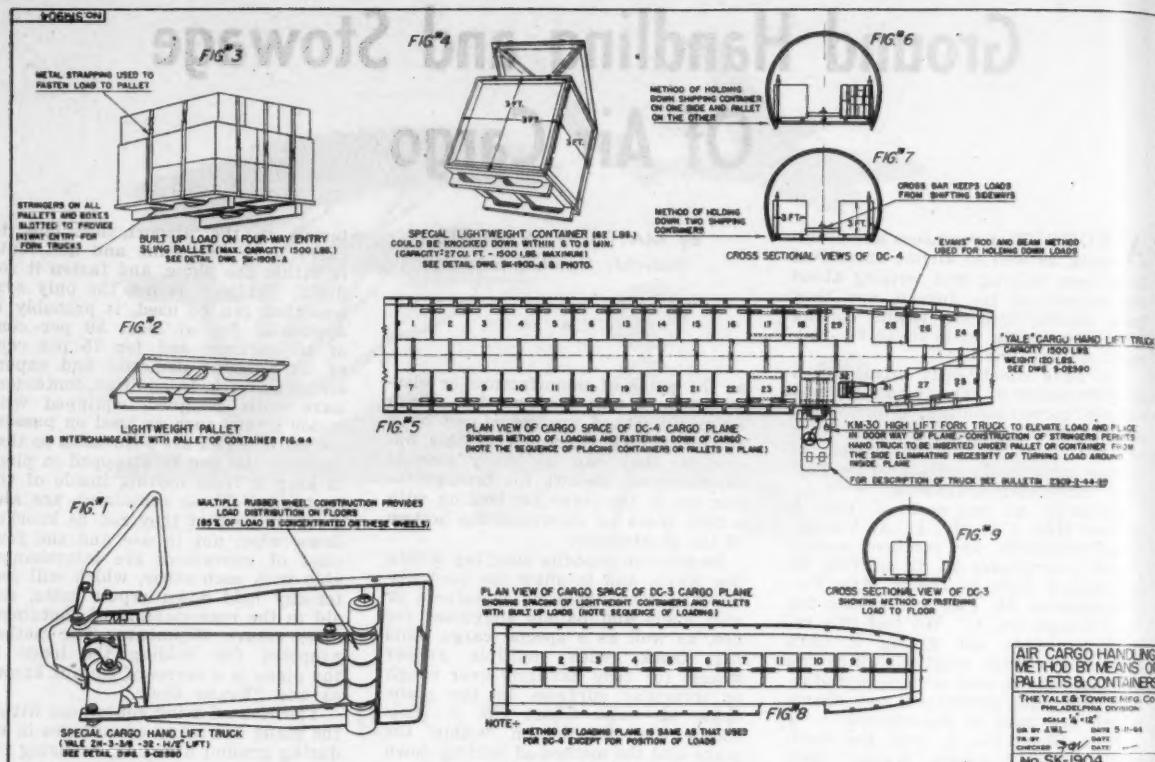


Chart No. 2

in the case of large shipments, the containers should be packed by the shippers of the commodities, thus eliminating individual handing of a number of packages through several operations.

It is going to require experimenting.

with a number of ideas before an efficient system of air cargo handling will be developed. We believe this report is a step in the right direction because it coordinates the completed movement or handling through the airport and into the plane.

(Both charts courtesy Yale & Towne Mfg. Co.)

This clearly illustrates that the manufacturers of materials handling equipment, through their able engineering organizations, can help to solve material handling problems. Coordination of this character will increase air cargo's potentialities.

Coordination of Major Trade Groups For Better Use of Air Cargo Urged

Coordination and cooperation of air carriers with producers, retailers, bankers, freight forwarders, customs brokers, motor carriers and warehouses, are imperative for the fullest development of air cargo and post-war distribution, speakers declared last month at a special luncheon conference at the Hotel Astor, New York City, sponsored by the Air Commerce Committee, Aviation Section, New York Board of Trade.

"Coordination of all groups able to contribute toward making for rounded-out services all along the line from producers to consumers is essential for more efficient and economical distribution," declared George F. Bauer, international trade consultant, who as chairman of the Air Commerce Committee presided at the meeting.

"Air transportation will have definite effect on merchandising," Maj. Benjamin A. Namm, vice president, National Retail Dry Goods Assn., pointed out. "Smaller stores," he said, "will be able to handle merchandise on which formerly there was little

turnover. Purchases from producers can be better aligned to purchases by local buyers in the air age. Variety of merchandise can be increased, especially with styled goods and novelties and also with some staple products.

"The entire tempo of merchandising may be accelerated," Maj. Namm said. New patterns of silk from China or of pottery from Europe can be merchandised on basis of air-borne samples, air-borne orders and air-borne deliveries within a period of days instead of months.

"Warehouses will be an important unit in distribution by airplane," George W. Gerlach, president, Manhattan Storage and Warehouse Co., stated. "Transportation and warehousing are basic functions in modern civilization. The suggestion that warehouses be incorporated at air freight terminals does not appear any more practical than erection of hotels at passenger air terminals. Refrigerator trucks operating between established cold storage warehouses and air freight terminals can provide

more efficient and economical service. "Since 1942," Mr. Gerlach said, "D&W, a national magazine devoted to vital subjects bearing on the warehousing industry, has given support on a wide front to efforts for coordination of warehousing facilities with those of the air transport lines

"Merchandise warehouses or 'Global Commerce Centers' in cities with air terminals," Mr. Gerlach said, "can provide space for sample displays, facilities for carrying manufacturers' stocks of such products as drugs, films, jewelry and other merchandise of value and light weight of which the nature is ideally adapted for air cargo.

"Increased tempo in commercial activity through air and warehouse service," Mr. Gerlach concluded, "will stimulate import and export trade, provide additional jobs and help maintain national well-being above depression levels."

"The bank can aid air commerce more effectively if certain obstacles are overcome," said A. M. Strong, chairman, Committee on Uniformity in Documents and Practices, Bankers Assn. for Foreign Trade, and manager, Foreign Department, Public National Bank and Trust Co., New York.

(Continued on page 90)

Conveyor System Used in Packing Signal Corps Items

A POWER conveyor system now in use by the Philadelphia Signal Depot of the U. S. Army Signal Corps is speeding up the packing and shipping of the 75,000 different items prepared by the Depot for domestic and overseas shipment. In addition, a better overall packing job is being accomplished in less space and with a saving of thousands of man hours.

The power conveyor extends the length of the main floor of the Depot and many of the packing operations, such as strapping and stapling, are effected as the items move along toward a chute which carries them down to the shipping department. The sav-

ing in time and floor space achieved by this installation permits more emphasis on the application of special skills and modern practices in effectively preserving and packing for depot stocks and for shipment.

Up-to-date packaging includes, for small items (1) cleaning, by the use of various aqueous liquids and petroleum solvents; (2) preserving, with various preventive compounds applied by spraying, brushing, or dipping; (3) wrapping in grease-proof, acid-free, non-corrosive, wax free wrappers; (4) labeling, by a method that prevents all possibility of removal of the label and permits prompt identification by Supply Personnel without dis-

turbing the preventive treatment, wrapper or seal; (5) overwrapping, for items of special importance or susceptibility, in order to prevent sticking.

Heavier items, such as power units and radio transmitters for tanks and half tracks, require a more elaborate packaging. The crate for a radio transmitter is constructed very solidly and with great care and the instrument itself is sealed in a moisture-proof barrier. Just before sealing, a dehydrating agent, consisting of bags of silica-gel or other desiccant, must be inserted inside the barrier. Then approximately 80 per cent of the air is sucked out of the container by means of a vacuum air extractor, and the top of the barrier is finally heat sealed. The crate is strapped and stapled for shipment.

Heavy items are side-tracked from the power conveyor at the Philadelphia Signal Depot and sent to the shipping basement by elevator instead of by chute, to avoid needless shock. For the great majority of the items dispatched by the Depot, however, the full conveyor system and chute can be used. This new installation has resulted not only in conserving space and man hours but in a marked increase in the efficiency of the Packing Department, so essential to the preservation of Signal Corps equipment and the smooth flow of supplies to the battle fronts.

Scale Model Fork Truck

EXACTLY one-sixth the size of the 25,000-lb. capacity Elwell-Parker power industrial truck which it represents, this model truck was built from



Built by hand, this exact scale model performs all of the functions of the fork truck which it represents.

the blue prints which are used in manufacturing the original operative type. The miniature is being demonstrated by O. R. Heidenrich, district manager of Elwell-Parker in Pittsburgh, who built it in 1300 hrs.

Each function of the truck is operated by means of a motor and controlling device. The controlling devices are all hand made and patterned after those in the standard unit. The drive motor, through its differential, operates two chains, each of which drives the front wheels on independent or trunnioned drive wheels.

Gear reductions both for the hoist and steering motors, as well as the differential gear, were either purchased or made by hand. The motors were purchased outside and are slightly larger in proportion than those required by the original machine.

The model truck measures 32 in. in length, 20 in. in height and 15 in. in width, and carries all the safety de-

vices and overrun devices of the original. It affords maximum traction whether the lifting forks are loaded or empty; consequently it meets the requirements of an oily mill floor in so far as traction is concerned.

Also shown in the illustration are various types of palletized prime unit loads, including boxes, barrels, bags and bulk material. The small dump body on the skid, for bulk material, is equipped with an automatic trip. The skid shown was also made by hand.

25th Anniversary



AN HISTORIC EVENT in the history of commercial aviation in the United States took place 25 years ago Nov. 14 last when, in the early morning, a huge four-engine Handley-Page bomber rose from Mitchel Field, N. Y., with 600 lb. of air express cargo and headed west. Never before had such a flight been attempted. In October of this year, the Air Express Division of Railway Express Agency reported a new high of 65,539 shipments handled for the domestic airlines at New York's La Guardia Field, an average of 2100 a day.

A Basis for Air Cargo Rates

Part 2—Complicating Factors in Arriving at Costs

The greatest opportunity for reducing air cargo costs rests in the field of ground handling which includes pick-up and delivery service. Speed, dependability and convenience are of prime importance in the performance of pick-up and delivery for air cargo. The airlines should jealously guard against losing minutes on the ground which may mean miles lost in the air. Coordinated arrangements with existing motor carriers seem the best solution for the airlines.

LAST month's article discussed the costs of operation on which air cargo rates might be based when planes carry nothing but cargo. The cost situation, therefore, was fairly simple. In reality, however, the cargo cost picture is complicated by two things. First, cargo must be handled on the ground; and second, there are, and will be for some time to come, two types of cargo handling: (a) where combination passenger planes are used and where cargo is really a by-product, and (b) where cargo alone is carried—a specialized service—real air cargo.

Most experts agree that the cost of transporting cargo in passenger planes should not differ greatly from the cost of carrying passengers insofar as direct and indirect flying expenses are concerned. To arrive at such figures the cost of flying a plane is allocated equally over each ton of payload carried, whether it is a ton of passengers or a ton of cargo.

Traffic and Advertising

The only difference entering into the calculation of other line-haul costs for cargo, as compared with passengers, is in traffic and advertising expense. This expense has always been much greater for passengers than it has been or will be for cargo. It has been estimated that traffic and advertising expense per passenger ton-mile will be at about 8c. in the immediate postwar period. At the same time various ground carriers have reported traffic and advertising expense per shipment to be as follows: railway express 0.5c.; motor carriers 7c., and freight forwarders 3c.

For the next few years the airlines will have to spend considerable in selling air cargo services; probably more than will the ground carriers. The Curtiss-Wright Corp. in its study of "Air Transportation in the Immediate Postwar Period," estimates that this selling and promotional expense of the airlines will amount to 21c. per shipment. When one considers that an average 1941 air cargo (or air express) shipment weighed 25 lb. with an average haul of 750 miles, this would mean a ton-mile cost of approximately 2c. for air cargo traffic and advertising. Even though we have a change in average weight of shipment when real air cargo becomes more common and a change in the average



By JOHN H. FREDERICK
Air Cargo Editor

○ ○ ○

length of haul one way and the other, the 2c. figure still seems conservative for a time at least.

Table I shows the estimates of various manufacturers for several types of future combination passenger and cargo planes as well as immediate postwar all-cargo planes. From this table it appears that cargo carried in combination passenger-cargo planes will be at a slightly less total ton-mile operating expense than the all-cargo planes. This is because cargo (or express) carried on passenger planes is subsidized by passenger and mail traffic to some extent. At least, under present operating practices passenger baggage and air cargo, carried in passenger planes, are handled by the same employees in loading and unloading. Other elements of ground costs are also applicable to all classes of traffic.

It appears that a good deal of air cargo for some time will be carried in passenger planes, thus taking advantage of the principles of joint costs and increasing returns applicable to all agencies of transportation. But, whether carried in combined passenger and cargo planes or in all-cargo planes the ground handling costs will have to be considered.

Ground Handling

Ground handling involves all the necessary operations in the transportation of air cargo except the airline haul between airports, such as: pick-up and delivery; terminal operations such as weighing, billing, sorting and dispatching; loading and unloading

trucks and planes; tying down and other stowage operations in placing cargo aboard planes.

Until recently, ground handling with the exception of loading and unloading planes, has been carried on exclusively by the Air Express Division of the Railway Express Agency throughout the United States. The cost of pick-up and delivery as performed under present arrangements has been estimated at \$1.04 per shipment. This does not include loading and unloading the planes. If we apply the cost of \$1.04 per shipment for pick-up and delivery to the 1941 average air express shipment weight of 25 lb. and to the 1941 average length of haul of 750 miles per shipment, we arrive at a cost of 11c. per ton mile. According to the figures in Table I, postwar ton-mile operating expenses of all-cargo planes will average between 27c. and 29c. Suppose pick-up and delivery expense is maintained at the present level, the total costs of operation from shippers' doors to consignees' doors will then be at about 38c. to 40c. per ton-mile.

Both of these cost elements may be reduced but the greatest opportunity rests in the field of ground handling. Such costs may be reduced by:

(1) Further development of materials handling equipment for use in loading and unloading planes and handling cargo at airports.

(2) Reducing costs of the physical pick-up and delivery service. It is the latter subject that will be discussed here.

Pick-up and Delivery

Several methods have been suggested for reducing pick-up and delivery costs which in turn should be reflected in lowered air cargo rates and thus tend to increase the volume of traffic; but only two of them have reached the stage of deserving serious attention at this time.

The first of these is to do away with the present special, unscheduled pick-up and delivery service such as that provided today by the Railway Express Agency for air express, and schedule all pick-ups so they will arrive at airports for dispatch in time to reach their destinations by the next morning. Then at destination airports deliveries would be so scheduled as to reach consignees before noon at the latest. It is held that



A Practical, Profitable Combination for Air Shipments to and from Mexico

Airfreight

AND AMERICAN AIRLINES INTERNATIONAL AIR EXPRESS

AIR SHIPMENTS both ways between the United States and Mexico now can be made at rates low enough to warrant the use of air shipping all the way in regular, day-by-day transactions. Airfreight, used in conjunction with American Airlines International Air Express, makes this possible.

From cities in the United States, cargo is shipped to Fort Worth or El Paso by Airfreight; then, to Mexico City or Monterrey via American Airlines International Air Express. For cargo from Monterrey or Mexico City to points in the United States, the process is reversed.

At present, Airfreight is available in less

volume than many interested shippers would wish. Commercial Airfreight cargo does not occupy space needed for vital war traffic; hence, current capacity is small. Nevertheless, the present operation of Airfreight offers shippers an opportunity to test and perfect plans for its greater postwar use.

Airfreight is offered in 43 American Airlines cities and adjoining communities. Rates are set in four classifications, and include pick-up and delivery at the points in the United States where Airfreight can be obtained. Shippers everywhere in the United States can take advantage of Airfreight, however, by using coordinated trucking service.

For complete information write

AIRFREIGHT Division, American Airlines, Inc.
100 East 42nd Street, New York 17, N.Y.

AMERICAN AIRLINES Inc.

THE NATIONAL AND INTERNATIONAL ROUTE OF THE FLAGSHIPS

overnight, rather than same-day delivery, would satisfy most consignees since many air hauls are too long to permit complete door-to-door service to be accomplished within the business hours of a single day; furthermore, shippers ordinarily do not have goods ready for shipment until late in the day. "In the few cases where air express may be picked up early in the day, it often happens," as the Curtiss-Wright study points out "that the shipment is delayed at the originating airport (while awaiting an outgoing schedule) to such an extent that it arrives at the destination airport after 4 p. m. Express arriving at the destination airport later than 4 p. m. cannot ordinarily be delivered the same day, since most receivers of express do not remain open after 5 p. m."

It has been estimated that a regularly scheduled ground service in accordance with this first suggested method of reducing pick-up and delivery costs would pull down such costs to approximately 8c. per ton-mile. This would give a total ton-mile cost figure of from 35c. to 37c. per ton-mile using the operating cost figures shown in Table 1.

A scheduled pick-up and delivery service worked out by an airline with a motor carrier seems to be sound. Potential air cargo users are accustomed to the pick-up and delivery given for railroad and air express, as well as the l.c.l. store-door delivery and pick-up services of the railroads. Shippers and receivers have been educated to expect a complete service and habit is a strong factor that has to be reckoned with.

American Airlines Tariff

The second method is embodied in the American Airlines Air Freight Tariff, filed on Sept. 14, 1944, with the CAB, and which went into effect on Oct. 15. The method here put into effect is not so much one of reducing ground handling costs, as such, but is aimed at reducing the total air cargo rates for shippers or receivers in a position to perform their own pick-up and delivery. This tariff provides an allowance in lieu of pick-up or delivery stated as follows in Rule 7:

a. Except as otherwise provided in this tariff, or as amended, a cartage allowance based on twenty (20) cents per 100 pounds at actual weight, subject to a minimum allowance of twenty (20) cents, will be paid in lieu of pick-up and/or delivery service to and/or from the airport used by the carrier.

b. Except as otherwise provided in this tariff, or as amended, a cartage allowance based on ten (10) cents per 100 pounds at actual weight, subject to a minimum allowance of ten (10) cents, will be paid in lieu of pick-up and/or delivery service to

Rate Cuts Proposed For Air Express

PROPOSALS for reductions in air express rates have been made by the Air Express Division, Railway Express Agency, to the commercial airlines. Although details have not been made public, C. A. Frey, vice-president in charge of traffic for Railway Express, has been quoted as saying that the ultimate aim is to cut present rates in half. A spokesman at Railway Express Agency's office confirmed this to D and W.

In newspaper accounts, which appeared on the eve of the NIT League meeting in New York City, Mr. Frey is reported to have said that the airlines are daily increasing the size of their fleets, and thereby increasing their air express carrying capacity. "With the receipt of these planes," said Mr. Frey, "we have suggested that they ought to reduce their rates."

At present air express is moving on all airlines at the same rates. However, several lines are experimenting with new schedules, notably American Airlines, which on Oct. 15 last inaugurated an air freight schedule which, it is said, enables certain types of merchandise to be transported from New York to Los Angeles at \$39.50 per 100 lb. The lowest comparable railway express rate for similar cargo is understood to be \$84.

and/or from the carrier's city consolidation station in localities where such stations are maintained.

Payment of the "cartage allowance" is provided for in this manner:

a. Allowance in lieu of pick-up service as provided in Rule 7 will be payable only to consignor upon presentation of a written statement either itemized indicating date and weight of shipment, location of station to which shipment was delivered by consignor, and names of consignor and consignee, or by including with this statement memorandum copy of bills of lading and/or freight bills within fifteen (15) days after the first of the month following the month shipment is tendered for transportation to the carrier.

b. Allowance in lieu of delivery service as provided in Rule 7 will be payable only to consignee upon presentation of a written statement either itemized indicating date and weight of shipment, location of station from which shipment was received by consignee, or by including with the statement memorandum copy of bills of lading and/or freight bills within fifteen (15) days after the first of the month following the month shipment is received by consignee at the carrier's terminal.

Under the American Airlines tariff a shipper or receiver is certainly entitled to the pick-up or delivery allowance if he provides his own service by means of his own trucks or, apparent-

ly, by a motor carrier of his own selection rather than relying upon the motor carrier designated by the airline to perform pick-up, delivery and consolidation.

Difficulties Involved

Of course, it will take some time to see how the American Airlines tariff works out. It should be a step in the right direction, but there are several difficulties:

(1) Even though a saving might be apparent to shippers and receivers it might not be a real one when over-all costs of operating their own delivery equipment and the inconvenience involved are taken into consideration. Also, the process provided for collecting the "cartage" allowance in the tariff now on file seems to the writer somewhat cumbersome and inconvenient.

(2) The Air Express Division of the Railway Express Agency includes pick-up and delivery of all shipments as part of its service. The Railway Express Agency also provides it for rail express. Air cargo is competitive with both. That a complete service involving store-door delivery and pick-up is a competitive weapon is shown by the fact that the railroads had to inaugurate pick-up and delivery soon after motor carriers started it.

(3) A delivery service should at least be offered so an airline may not have to notify consignees when a shipment arrives. Any arrangement made either by telephoning or by mailing the notice of arrival will be cumbersome and costly, and the latter method would sacrifice the speed advantage. Air cargo will be likely to arrive several times a day at most airports and it will usually be inconvenient for consignees to send a truck to pick-up incoming shipments two or three times, or more, each day or else sacrifice some of the advantages of speedy long-haul service.

(4) Speed, dependability and convenience are of prime importance in the performance of pick-up and delivery for air cargo. The airlines should, therefore, jealously guard against losing minutes on the ground which may mean miles lost in the air. It would be a mistake to put air cargo development at the mercy of receivers who take a long time to call for goods in their own trucks and then say: "I can't see where this air cargo business saves so much time." Speed of line-haul must be tied into speed of delivery and pick-up.

Coordinated Service

It seems to the writer that the best solution is for the airlines to form cooperative and coordinated arrangements for pick-up and delivery with existing motor carriers. American Airlines is leading the way in this through its arrangements with such motor lines at its chief terminals. Experience, no doubt, will show the value of scheduled pick-up. For example:

A study of motor truck operations made by Mack Mfg. Corp. for Curtiss-Wright shows that about 33c. per shipment would represent a reasonable average cost of pick-up and delivery for air cargo in a scheduled opera-

(Continued on page 93)

Comparison of Various Types of Combination and All-Cargo Planes*

	Future Combination Passenger and Cargo				Future All-Cargo				
	250	500	750	1,000	1,250	6.8	6.2	5.8	5.0
Range in miles									
Payload in tons									
Total airline operating expense per revenue ton-mile	\$.214	\$.184	\$.168	\$.1705	\$.176	\$.1944	\$.1948	\$.2037	\$.2180
Ground handling expense	.036	.060	.059	.058	.057	.0800	.0800	.0800	.0800
Total ton-mile operating expenses	\$.250	\$.224	\$.227	\$.2285	\$.233	\$.2744	\$.2748	\$.2837	\$.2980

*Adapted from a study by "Aviation."

TWA Is Acquired By Hughes Tool Co.

Hughes Tool Co., Houston, Tex., has acquired control of Transcontinental and Western Air, Inc., it was made known recently. The company, manufacturer of tools for the oil well drilling industry and, since the war's outbreak, maker of aircraft parts and accessories, is headed by Howard R. Hughes, aeronautical engineer and record-holding aviator.

Jack Frye, president of TWA, recently made a plea for more international airlines. Speaking before a CAB hearing on applications for postwar air routes over the North Atlantic, he said that the United States is "large and powerful enough in relation to other countries in the world to support a relatively greater number of international airlines."

Cargoliners Set New Trans-Atlantic Marks

Bearing a full cargo load plus 14 passengers and piloted by Capt. Charles F. Blair, Jr., an American Export Airlines Flying Ace settled down on a field in Foynes, Ireland, recently, 14 hr. and 17 min. after it had taken off from LaGuardia Field, New York. The new time is one hour and 13 minutes better than the previous time.

A few days later another trans-Atlantic flight record was broken by a Trans-Canada Air Lines Lancaster carrying 6031 lb. of mail and 2036 lb. of priority freight, which took off from Montreal and flew to Great Britain in 10 hr. and 13 min. This was one hour and one minute shorter than the previously established time.



Glenn L. Martin Announces New Plane To Match Rail Rates in Postwar Era

"Air Cargo Aid to Trucking"

Cargo planes will not take away much freight from the trucking industry, if and when, air-freighting assumes large-volume proportions, in the opinion of Frank Talbot, who recently became affiliated with West Coast Fast Freight Lines, Inc., Los Angeles.

"I rather am inclined to the opinion that this newest form of competition in freight hauling will actually benefit the truck lines," Mr. Talbot said. "Just as trucks have made more business for the railroads and as all improvements of facilities for moving goods have always created greater volume for all existing modes of transportation, so air cargo will result in certain benefits to trucking." (Herr)

Seattle Commission Takes Over Airport

Operation of the Seattle-Tacoma Airport has been taken over by the Seattle Port Commission, according to a report from CAA. A \$4,000,000 project, jointly undertaken by the Port Commission and the airlines, may not be carried out until after the war, CAA men believe. (Gidlow.)

Lightweight Wirebound Boxes Tested For Carrying All Types of Air Cargo

Expecting postwar needs of air freight to be heavy, manufacturers of wirebound boxes are reported to be developing lightweight shipping containers to carry all types of cargoes.

Since their boxes and crates it is said can meet the requirements of heavy loads with less weight than many other types of shipping containers, these manufacturers are engaged in research to create a box for almost every type of bulky item.

In one test case at the Package Research Laboratory in Rockaway, N. J., two types of boxes were designed to carry 10 five-pint bottles of acid, one a conventional nailed wooden box, the other a wirebound box. Each, under tests, demonstrated its ability to meet safety requirements, rough handling and other hazards. Because the wirebound box, taking strength from its wire and staples, used much lighter wood, its tare weight was 19 lb., as against the other box's 28 lb.

On air freight costs alone, for a trip from Chicago to Pittsburgh at

present air express rates, the wirebound box would save the shipper \$1.28, amounting to nearly 13c. a bottle on the acid. Since the original cost of the nailed box was \$1.37 and that of the wirebound only 35c. (and it can be assumed that each will be used only once) the overall saving would be \$2.30, or 23c. per bottle of acid.

Even allowing for lower air freight rates after the war, the manufacturers of wirebound boxes see in typical test cases a wide open opportunity to serve shippers who will send much of their material by air.

Able to engineer shipping containers for anything from a few miscellaneous parts to a large refrigerator, the industry is prepared to serve virtually every industrial market, it is said. Fifty firms with 66 plants service all sections of the country. Last year they delivered 125,000,000 wirebound boxes and crates, according to the Wirebound Box Mfrs. Assn., Chicago.

The Martin Mercury, a newly developed plane for postwar use, is claimed by the maker, Glenn L. Martin Co., Baltimore, Md., to be capable of competing with railroad coach fares on hauls from 50 to 700 miles. It is a short-range, low-cost passenger and freight plane and has two engines.

Direct flight cost will be 1.15c. a passenger mile, with indirect cost, such as advertising and sale of tickets, bringing the total up to approximately 2½ to 3c. a passenger-mile. Beyond the 700-mile economy range direct flight costs will go up, the company said. Any airstrip now in use for twin-engine planes will be suitable for the operations of the new Glenn Martin model.

A movable bulkhead will assure easy adjustment between passenger and freight loads, the company said. The ship's total cost is expected to be around \$250,000. Its gross weight of 33,500 lb. makes allowance for a fuel capacity of 600 gal. Takeoff horsepower will be 2,100, and normal power 1,700. This will enable the plane to cruise at 254 m.p.h. and to attain a speed of 314 m.p.h., representatives of the company said.

Maximum safety and economy were the principles which guided the company in its one and a half years of research. The new long-wing ship will be capable of taking off on a single engine in case its other engine fails, the company says.

"Flying Trailers"

Viewed in Near Future

Postwar possibilities of the airvan or "Flying Trailer," a product of the Van Tuyl Engineering Co., Los Angeles, Cal., which is an inter-changeable truck-trailer and airplane cargo fuselage for combined highway-air transportation of household goods, are under consideration by the Bekins Van and Storage Co., Los Angeles.

The airvan can be loaded at a shipper's door and drawn by truck-tractor to an airport, where it is attached to a plane consisting merely of wings, power plant and cockpit with wheels of the trailer serving as landing gear of the plane.

"From the standpoint of speed and cost of operation, by virtue of its freedom from the need for competition with high-speed super-airliners, the trailer carrying aircraft, operating at relatively low speeds, would require only a fraction of the power required for airliners," the engineers say.

A MODERN MANUAL OF MATERIALS HANDLING EQUIPMENT

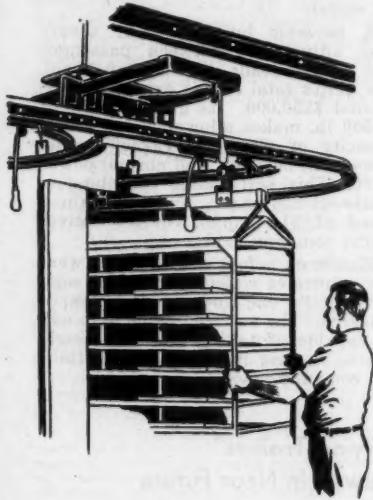


This is the last installment of Mr. Potts' modern manual of materials handling equipment. It has been published serially in D and W exclusively. Each major type of handling equipment has been named, defined, illustrated, described and its usual applications explained.

Monorail

Definition—A system of overhead trackage of simple rail construction, from which can be suspended various forms of hoists and other overhead carrying devices.

Description—Monorail can be standard I-beams, plain steel bars, or double channel construction; it can be of the pressed steel special U-



Monorail

shaped construction; it can be of a special T or cross section construction. The type of rail generally is determined by the manufacturer, but most all types of monorail systems can be equipped with switches, crossovers, turn tables or interlocking devices in order for the system to be complete. In a number of instances the rail supports either hoists or trolleys from which are suspended racks, hooks or other carrying devices, and these can be hand propelled, or propelled by several different mechanical methods. One method is to run an auxiliary pusher conveyor chain alongside of the monorail, particularly for negotiating inclines. Another system is to equip the rail with an electric trolley system so that the hoist, the monorail trolley or other motorized units can pick up its power at

any point along the rail while travelling. The monorail track is suspended from overhead girders or superstructure and in using the term "monorail" it generally applies to the type of the track supporting the load and not the superstructure supporting the monorail tracks. Monorail track is developed in light, medium and heavy duty, with a wide variety of trolleys, and it is important to consider the right track and the right trolley for the work to be performed.

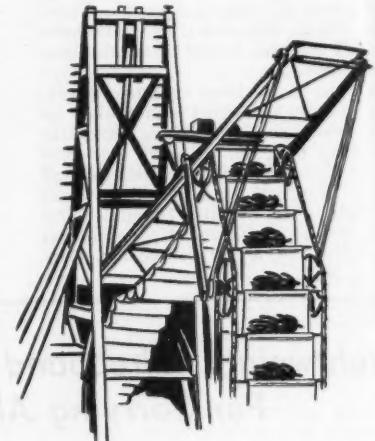
Application—Monorail can be applied to many industrial handling operations in production, on jpanning, painting, baking, core ovens, special process equipment, etc. A simple plain bar track is used in refrigeration coolers for suspending meat and other products. Elaborate systems of monorail construction have been developed for transportation on piers, docks, over coal bunkers, steel storage areas, etc.

Conveyor Sling

Definition—A carrying conveyor and elevator with slings or pockets for supporting the load.

Description—This type of conveyor

also has been called a "banana carrier." It consists of two strands of continuous chain, with cross rods spaced at regular intervals, the cross rods supporting canvas slings or pockets into which the load can be placed. Other materials have been used for these slings or loops, but in the majority of cases, the material is canvas or canvas belting. The conveyor can travel in a vertical plane,



Conveyor Sling

Conclusion

WITH this issue, Mr. Potts concludes the serial publication of his "Modern Manual of Materials Handling Equipment" in D and W.

During the past year and a half he has covered the fundamental design and application of the principal types of equipment for the handling of bulk and packaged materials in their fundamental design and application. The principles involved in this type of equipment apply to other units not generally considered as materials handling equipment, such as automatic bottle washing machines, automatic plating machines, fillers, sealing machine, grab buckets, excavating machines, bulldozers, snowplows, etc. Strictly speaking, such units really are materials handling equipment.

However, if Mr. Potts has omitted, inadvertently, any particular piece of equipment in which our readers are interested he will be pleased to have it directed to his attention, so that it may be noted and, possibly, covered in some future issue.—The Editor.

then in a horizontal plane, and then again in a vertical plane if desired. As the loads pass from one turn to another, they are rolled into a new position in the canvas sling, but are not discharged. Because of its construction the conveyors can be run in reverse directions and, therefore, can be used for loading or unloading vessels. The supporting frame depends entirely upon the application of the unit. The one shown in the sketch is unloading bananas from the hold of a ship. The size of the package that can be handled is limited by the depth or size of the sling, and these units are best suited to the handling of uniform shaped packages, or within a limited range of sizes. These units can be mounted in a fixed position or on movable support frames, particularly if being used for ship unloading.

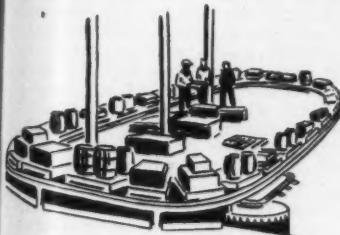
Application—This type of conveyor

is generally used for the handling of cargo to or from shipside and out of the hold of the vessel, but it also has had application for handling materials in festoons as well as packaged materials on industrial operations.

Carousel Conveyor

Definition—A form of apron conveyor which travels in a complete circuit, generally on a horizontal plane.

Description—Carousel conveyors are sometimes referred to as carry-all conveyors. The conveyor consists of a continuous system of chain with trailing dollies, fixed platforms,



Carousel Conveyor

aprons or other carrying surfaces, travelling in a complete circuit so that material placed on the conveyor will continue over a definite line of travel until removed from the conveyor. In some forms, the conveyor is built like an apron conveyor with cross pieces, but since the conveyor must go around curves these cross pieces are tapered at one side. In another form, the conveyor surface is overlapping discs of metal so that the conveyor can turn either to the right or the left. Carousel conveyors also have been built with individual trays mounted on the chain or trailing on casters, being attached to the chain with a pivot link. Some of these units travel not only in the horizontal plane, but also up and down inclines. The use of the word "carousel" is to indicate that it is carried around and around and around.

Application—This type of conveyor has been used extensively in canning plants as a work table, in bottling plants, in foundries for the handling of flasks and in assembly plants for the handling of parts to and from the sub-assembly lines and the main assembly line.

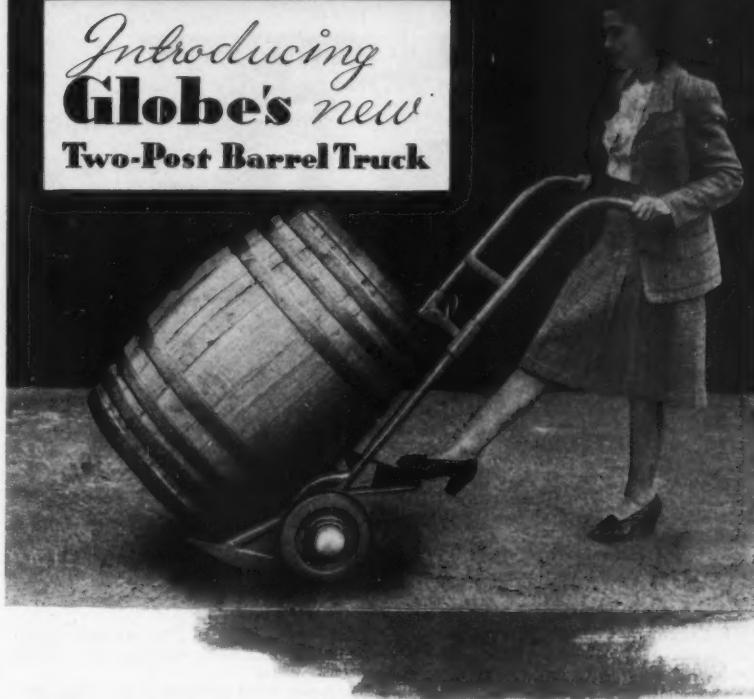
Demountable Bodies

Definition—A system of unit containers that can be used on freight cars or motor haulage units or both.

Description—Demountable bodies have been made in a wide variety of sizes and with various types of construction. They have also been designed with different systems for loading and unloading to and from the transportation vehicles. In the case of demountable bodies which are used with railroad cars, the construction has generally been too heavy, which necessitates the use of overhead cranes for loading and unloading, although some have now been developed which can be rolled easily or

(Continued on page 96)

Introducing
Globe's new
Two-Post Barrel Truck



THIS new Two-Post Barrel Truck by Globe is the latest, most economical solution to your handling problems. Carefully engineered and sturdily constructed, it operates more easily than any other truck on the market.

Self-loading and unloading, it will handle all sizes of drums, barrels and both small and large tierces as well as flat boxes, yet only one man is required in its operation. To load—place the truck against the barrel, drop the chime hook and, placing a foot on the bar, pull down on the handle. Unloading is just as easy.

This truck, when set down on the scale, leaves both ends of the barrel free for easy marking. And it parks barrels *flush* against one another to save valuable storage space. Upright when not in use, these barrel trucks nest compactly in small space. Floor-saver wheels and perfect balance of the load assure easy rolling and prevent undue operator fatigue.

Your man on the floor will like this new method of handling barrels. You'll like it too for the savings in time, labor and floor space it offers. Write today for full details.

Patented and other patents pending.



THE GLOBE COMPANY

4000 PRINCETON AVENUE

CHICAGO, ILLINOIS

30 years of serving the meat packing industry with expertly designed equipment

Use of Conveyor Permits Uniform Dipping Of 4500 Spark Plugs Per Hour



The conveying mechanism shown in the illustration is a compact unit capable of dipping spark plugs at the rate of 4,500 per hour.

THE Corcoran Brown Lamp Works, Division of Auto-Lite, Cincinnati, O., selected a plastic coater manufactured by the Youngstown Miller Co., Sandusky, O., for melting and dipping the ethyl cellulose used in coating its spark plugs. This forms a tough, water-proof, corrosive resistant coating which protects the part until it is used. When the need for protection has passed, the coating is quickly and easily removed by slitting it and stripping it from the part.

The company's engineers designed the conveyor shown in the accompanying photograph. An operator hangs six plugs on each cross bar. After being immersed in the dip compartment of the plastic coater, the plugs are returned overhead to the end from

which they start. This system permits the uniform dipping of 4,500 plugs per hr.

Indirect heat is employed. This enables the melting of 100 lb. of plastic per hour without danger of breaking down the ethyl cellulose by excess heating. Thermostatic control is maintained over both the heat exchange medium and the plastic to insure that neither rises over its maximum allowable temperature. The plastic is melted and preheated to proper temperature for dipping before entering the dip tank section of the unit. Extremely close control (2 deg. F. maximum variation) and uniformity of temperature is achieved with remarkably low heating surface temperature.

Materials Handling Council Formed

Matthew W. Potts, materials handling consultant, materials handling editor of *D and W*, technical consultant for the Bureau of Supplies and Accounts, Materials Handling Section, Field Operations Branch, U. S. Navy, and member of the executive committee, materials handling division, American Society of Mechanical Engineers, has formed the International Materials Handling Council in conjunction with founder members. The Council, it is understood, is being organized for users of materials handling equipment. A brochure, Mr. Potts states, is being prepared outlining the purpose and functions of the Council, and should be ready for presentation to the public within the near future.

X-Rays and Conveyors

Shells and rocket projectiles now are X-rayed on a conveyor-belt system to assure packing of the explosive, the Eastman Kodak Company revealed recently in Rochester, N. Y.

The company made the disclosure as it announced shipment of more than a ton of its X-ray film for Texas, Kansas and Tennessee ordnance plants using the new X-ray system, which permits rapid sequence exposures. The film is developed on a straightline production basis and is examined before shipment of the shells to prevent defectives from reaching combat troops. (Toles)

The solid plastic is introduced at the loading end of the tank and reduced to liquid at the right hand end of the heating pads. The temperature of the liquid is raised to the dipping temperature by flowing over and between the pads to the left hand end of the unit where it is picked up by a plastic pump immersed in the liquefied plastic. The pump delivers the plastic into the dipping compartment at such a rate as will maintain an overflow over a weir located at the right hand end of the dipping tank. The overflow is reheated by passing under the dipping tank over the reheating section of the heating pads and to the pump again. This plastic movement gives several needed effects:

(1) The film which forms on the dip tank surface exposed to the air is continually removed or prevented from forming because the surface is in steady motion in the direction of the weir. (2) Bubbles, which may form in the ethyl cellulose due to the immersion of the part to be dipped, are continuously removed over the weir. (3) The temperature of the plastic at the point of dipping is maintained absolutely uniform, resulting in a standard quality of coating at all times. (4) The level of the dipping surface is maintained without variation, a feature which is necessary for automatic conveyor handling. The weir is adjustable so that the level of the dipping solution may be controlled for various sized parts. (5) Agitation.

The conveying mechanism is a compact unit, the whole assembly taking up much less floor space, it is said, than an installation using the wrapping method for an equal production. An overhead return permits a travel time to allow the plugs to cool before packing and requires a minimum of labor since the persons packing can also remove the coated parts.

Tool Engineers In New Quarters

The American Society of Tool Engineers has established its national office in the Penobscot Building, Detroit 26, Mich. The consistent growth of the Society since its founding in 1932, until it now numbers more than 16,000 tool engineers in its membership, has resulted in the expansion of its service facilities to an extent making necessary this change from its present location, Adrian L. Potter, executive secretary, said.

In addition to the staff necessary to service the members affiliated with 66 chapters in the United States and Canada, the new offices will house the editorial staff for the "Tool Engineer," official Journal of the Society.



Exides and Palletized Loads... a team that keeps production moving

MUCH of the vast tonnage, that's rolling over rail and highway, received its first ride—and many following ones—as palletized loads, on electric industrial trucks powered by Exide Batteries. It's a result-getting combination... an efficiency team that helps to speed up production by cutting corners in materials handling.

To maintain the faster, steadier pace that palletizing makes possible, batteries must have abundant power and endurance. That Exide Batteries have plenty of both is amply proved by their widespread use in shipping and receiving departments, in warehouses, and on miles of loading platforms throughout the land. And wherever they are used, Exides are performing with dependability, long-life and ease of maintenance.

Write us for a FREE copy of the bulletin "Unit Loads," prepared by the Industrial Truck Statistical Association. It tells how to cut handling costs up to 50%... covers latest developments in materials handling... and includes actual case histories.

SUPPORT THE 6th WAR LOAN

LEND OVER HERE, TILL
IT'S OVER, OVER THERE

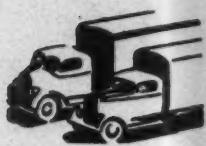


Exide
BATTERIES

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia 32

Exide Batteries of Canada, Limited, Toronto

Motor Cargo . . .



'Integration' is Just Another Word For 'Monopoly', Truck Official Warns

A federal law calling for removal of private motor truck fleets from the highways is being advocated by supporters of the plan for "integrating" ownership of rail, truck, water and air transportation systems, Chester G. Moore of Chicago, well known trucking official, charged recently in an address before the Junior Traffic Club of Milwaukee, Wis.

Pointing out in a discussion of the "integration" plan that most of his hearers represented large manufacturers or distributing companies which operate their own small, medium or large motor fleets, to carry their own products over public rights of way, Mr. Moore said, "I think you may be interested in knowing how far some of the proponents of integration are willing to go in their thinking about the transportation system of tomorrow. A significant revelation was made recently by H. M. Lull, executive vice president of the Southern Pacific Lines, in a speech before the Southern Shippers Advisory Board.

"After announcing his support of the integration plan, Mr. Lull listed as a 'fundamental requirement,' and I quote here, 'the elimination of the private carriage of articles of commerce by the owners thereof, except in certain cases where such elimination is not practicable.'

"Think of it! Mr. Lull and other advocates of integration who share his views would have Congress enact a law which, in effect, would say to the citizens of the United States, 'From this day onward you are prohibited from loading your own products on your own trucks and hauling them on the highways of the United States.'

"You people in the transportation business, either directly or by virtue of being dependent upon transportation for distribution of your products, are confronting a great many problems and not the least of them is this question of integration.

"This idea can't be dismissed as the casual dream of a starry-eyed thinker carving out a place for transportation in the brave new world everyone is talking about. Nor is it just another example of 'post-war planning'. No. This program is being promoted by highly realistic people who know what it is all about; who have definite ideas about what they want, and who intend to have their way. Don't have any illusions about that."

Pulling no punches in an analysis of the "integration" plan, Mr. Moore, who is secretary of the American Trucking Assn., Inc., and chairman of the board of Central Motor Freight Assn., Chicago, declared that the word

ATA Recommends

Executive Committee of American Trucking Assn. has (1) approved for present-day use standards of vehicle sizes and weights recommended by National Interregional Highways Committee in report to Congress and suggested a set of more liberal size and weight specifications as basis for highway construction in the future; (2) passed a set of recommendations to the effect that federal emergency agencies and wartime controls affecting transportation be discontinued as soon as practicable; (3) set machinery in motion to urge upon the President that in deciding on any future appointments to ICC he should give consideration to a person or persons familiar with problems of trucking industry.

"integration" is just another word for "monopoly."

While the Transportation Assn. of America, chief advocate of the integration proposal, is "presumably an unbiased organization dedicated to improving our transportation system," he asserted, "actually there is good reason to think it is a front for the railroad and financial interests seeking to gain control of all forms of transportation."

"Let's strip the sheepskin off this wolf and see what the creature really looks like," Mr. Moore continued. "What the proponents of integration

claim they want, can be stated very simply: they advocate formation of an indefinite number, say five, seven or eleven, transportation companies, which would control, in their areas, railroads, airlines and trucking companies.

"They want to wipe out competition between types of services. They don't want trucks competing with rails, or waterways with rails. They want to wrap the whole deal up into a few packages and wipe out all competition, except that between for-hire carriers and private carriers and competition between these transportation companies located in various sections.

"Stripped of all fancy verbiage and fine-sounding philosophy, we have here a simple monopolistic idea. Railroad financiers, who missed the boat on the development of motor transportation; who came in late on bus transportation; and who did not get to the airport on time to get in on air transportation, are now entertaining visions of themselves as masters of huge transportation companies."

Referring to a speech by the vice president-elect, Harry S. Truman, before the Baltimore Traffic Club, some time ago, Mr. Moore pointed out that Mr. Truman had drawn a distinction between "integration of operation" and "integration of ownership." Senator Truman had argued, Mr. Moore said, that integration and coordination of modes of transport would result in improved service and reduced cost to the shipper and, therefore, would be desirable. But it does not follow that such integration can be achieved through integrated ownership only, Mr. Moore said. The Senator in his talk had pointed out that we might need more transportation enterprises.

"Like Senator Truman," Mr. Moore
(Continued on facing page)

Synthetic Tires Require Greater Care Than Natural Rubber Ones, ODT Says

Synthetic tires and tubes on commercial vehicles will have to be used and conserved with greater care than is usually given natural rubber tires, W. J. Cumming, chief maintenance section, Office of Defense Transportation, warned recently.

"Because of limited supplies of tires and tubes, commercial motor vehicle operators will have to be additionally careful of synthetic tires in order to get the full mileage being built into this new product. They are certainly sensitive to abuse and handling and for this reason their care and use must be most carefully watched."

Drivers and loaders will have to be impressed with the fact that heat from any source is destructive to these tires

and their tread stock is not as resistant to cuts and tears as is natural rubber. Overloading, high speeds, and underinflation all tend to build up heat.

"To avoid a lot of blowouts and consequent layup of equipment, truck operators ought to school their operating personnel in tire and rim associations' recommendations on inflation pressures, loading and speeds. Attention must be given to the proper lubrication of tubes and insides of casings with recommended soap solutions. The same applies to the breaking in of new tires, to rotation and mating of dual tires to frequent correct inflation when tires are cool, and retreading at the proper time."

continued. "I believe that the basic error in the proposal of the Transportation Assn. of America is that they are confused by the distinction between integration of service and integration of ownership. Operators of motor transport have long favored closer relationship between rail service and highway transportation, just as, today, we are working for a close relationship between air freight and motor carriage.

"We have had little or no success in trying to establish unified truck-rail service, but, in contrast, we are making definite forward strides in our relationship with the air freight people. As chairman of the special committee from ATA, working on this project with the air lines, I can assure you that their attitude is most progressive and open-minded. This, I think, is to be expected, since the newer forms of transport are certainly less hidebound, less hedged in and circumscribed by tradition and convention, than are the rails."—(Slawson)

Labor Dispute Certified on Coast

Two hundred member firms of the Truck Owners Assn. of California, and about 500 employees of the Teamster's Union (AFL) are principals in a dispute that has been certified to the War Labor Board. Chief issue in the controversy are hours, vacation, union membership, loading and unloading. (Gidlow)

Function and Design Of Postwar Trucks

POSTWAR trucks are going to disappoint carriers who expect "dream designs," and futurama attachments such as having a unit included for hot coffee or cold drinks operated by dashboard button. But carriers who want practical innovations will welcome the new trucks. Robert Cass, chief engineer, White Motor Co., pointed out at a recent "Information Please" session of the Pennsylvania Motor Truck Assn. at Pittsburgh.

Instead of emphasizing style of trucks and style only as some advertisers have done, we must first stress "functionability," even if it does make design lines look severe, Mr. Cass said.

Secondly, Mr. Cass said, the war effort still makes it impossible to tell when newly-designed trucks will be marketed, and timing of their production may influence greatly features of design.

Design, Mr. Cass said, must consider the driver and his cab. Three major things concern the driver: (1) his seat comfort; (2) his vision for safety; (3) ventilation. These features are hard to design, because people differ as to what is most comfortable, and the many types of service for which trucks are used creates dif-

ferences in thinking, particularly regarding seating and ventilation.

How much noise can be subdued, Mr. Cass stated, will depend on what insulation materials have become economically practical. He added, there is no standard available for comparing different types of seats and cushions.

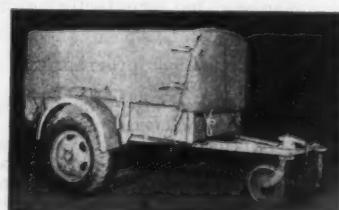
Truck cabs, Mr. Cass continued, can't be standardized so easily as airplanes. If wave lengths can be allocated, however, two-way radio systems are likely for truck fleets.

Engine improvements on the new trucks, he said, will include continued use of aluminum pistons with extruded or forged pistons possible. Valves will be liquid-cooled as in airplanes. Six years' experience shows the higher initial cost of liquid-cooled valves is of no importance compared with the longer time they will wear.

More truck engines, Mr. Cass stated, will be equipped with zero lash tappets because they eliminate valve lashing. Simple, properly-hardened crankshafts and, operating on them, precision-type bearings, possibly improved by new war techniques in plating, will be used. Copper-lead or silver tri-metal bearings promise longer

(Continued on page 93)

Wherever they are— highway transport is on the job



After cargo trailers like this one have left our production line we don't know where they report for service. Like all good soldiers they go where the armed forces need them most. But whether you find them in France, the South Pacific, or U. S. A. training areas they are helping to prove something that every good truck or van operator knows by heart — **HIGHWAY TRANSPORT IS IN A CLASS BY ITSELF FOR FLEXIBLE, ADAPTABLE DELIVERY OF GOODS.**

What is true in war is true in peace—and after Victory, Gerstenslager products will still be helping to prove it.



The GERSTENSLAGER Co.

WOOSTER, OHIO

TRAILERS AND CUSTOM-BUILT BODIES FOR VANS AND TRUCKS

Established 1860

Analysis of Readers' Letters On Distribution

Of the letters received by *D&W* commenting on the editorial "Basic Needs for Better Distribution," published in the August issue, 51 per cent were from manufacturers; 9 per cent from wholesalers; 3 per cent from carriers; 25 per cent from warehouses, and 12 per cent from miscellaneous sources.

The letters from manufacturers were 89 per cent in favor of, and 11 per cent opposed to, the recommendations proposed, namely, (a) broader concepts of distribution; (b) simplification and standardization of methods and practices for more efficient and economical distribution; (c) establishment of a National Institute of Distribution by industrial and mercantile associations for cooperative action to implement the first two points. Letters from wholesalers were 78 per cent pro and 22 per cent con. The carriers were 100 per cent pro. Warehousemen were 88 per cent for and 12 per cent against. Among the miscellaneous group 92 per cent were in favor of the suggestions and 8 per cent were opposed.

It should be noted, however, that in nearly every instance the opposition expressed was in part only. The writers, in most instances, were concerned largely with methods of achieving the objectives suggested rather than with the principles involved.

Letters from manufacturers have been classified by products and represent 33 different categories as follows:

1. Mines and quarries.
2. Paper and paper products.
3. Air conditioning equipment.
4. Processed foods.
5. Die castings.
6. Materials handling equipment.
7. Mill supplies.
8. Drugs and chemicals.
9. Power plant equipment.
10. Elevators.
11. Packers.
12. Office equipment.
13. Shoes and leather goods.
14. Sporting goods.
15. Radio.
16. Wire products.
17. Paints and varnishes.
18. Hardware.
19. Roofing and building materials.
20. Electrical goods.
21. Packaging materials.
22. Glassware.
23. Printing and binding.
24. Humidity control equipment.
25. Musical instruments.
26. Automotive manufacturing.
27. Textiles.
28. Soap products and toilet articles.
29. Tobacco products.
30. Cotton and woolen goods.
31. Contractors.
32. Oil refineries.
33. Fire fighting equipment.

Letters from wholesalers, which term includes jobbers, brokers and commission merchants, represent eight major classifications:

1. Perishable foods.
2. Paper and paper products.
3. Processed foods.
4. Chemicals.
5. Wines and liquors.
6. Seeds, garden supplies.
7. Mail order houses.
8. Hardware.

While carriers by rail, water, highway and air contributed to the symposium, the number representing the rails and the waterways were in the minority. Private carriers, of course, are not included in this classification, only common and contract carriers.

Three branches of the warehousing industry are represented in the warehouse classification, namely, merchandise, cold storage and household goods.

Among the groups listed in the miscellaneous classification are the following:

1. Traffic consultants.
2. Chambers of commerce.
3. Publishers.
4. Trade associations.
5. Insurance companies.
6. Horticultural nurseries.
7. Cooperatives.

A number of suggestions were made

18. Price and service are the deciding factors.
19. A lot of production problems are yet to be solved.
20. Elimination of pressure group and lobbying in congress.

Wholesalers:

1. Better protection of perishable foods against weather hazard.
2. Organization of industrial and mercantile groups for cooperative action in the interest of better distribution.
3. More specific information on costs.

Carriers:

1. Quicker and safer schedule deliveries by rail.
2. Closer contacts between shippers and carriers.

Warehouses:

1. Consolidation of Army and Navy handling practices in civilian distribution.
2. More goods for more people at less cost.
3. Not only must distribution be cheaper, it must be better. Perishable fruit must get to the consumer so that it has more flavor and quality, and furniture must get to the consumer at lower cost and in better condition.
4. Warehousemen must become more merchandise-minded.
5. Packaging of many items formerly sold in bulk has had the effect of increasing rather than reducing costs.
6. Better university courses in distribution.

7. Standardization of rail and highway equipment for more uniform handling.
8. Re-examination of freight rates.
9. More direct routing of cars; proper loading and bracing.
10. Greater reliance on free enterprise.
11. Elimination of bureaucratic control.

Miscellaneous

1. Elimination of governmental control.
2. More comprehensive study of labor costs.
3. Less legislation.
4. Appointment of a distribution manager by manufacturing firm to operate in conjunction with traffic managers.
5. Education program by trades and associations.
6. Greater attention to loss and damage problems.

In concluding this analysis, we should like to state that, because of space limitations, it has been possible to publish only a fraction of the number of letters we have received. We regret this exceedingly, and wish to take this occasion to thank everybody who has contributed. Though many letters remain unpublished, many of the suggestions contained in them will be used in one way or another, if at all possible, to further the objective, so overwhelmingly endorsed, which is nothing more nor less than more efficient and economical distribution.

Get a Priority on Post-War Prosperity Through Post-War Reserves

Every progressive management should plan for post-war activity now. This should include an estimate of the outlay needed for deferred war costs, post-war modernization, expansion and promotion, and, if due, the 10 per cent refund on the excess profits tax.

AFTER the last "all-clear," manufacturers will be ready with many new developments in business equipment, some of them revolutionary in design or application, such as new machines, fixtures, store fronts, even new type buildings and appurtenances thereto, all designed to facilitate the production, storage and distribution of consumer goods at an accelerated tempo after the war. To keep in the "swim," businessmen will have to modernize or go down with the tide. There will be plenty of aggressive competitors willing to make investments in modernization after the war. Now is the time to plan a post-war program of modernization, expansion and promotion. It may be too late when the war is over.

Some managements are thinking about post-war possibilities, some have rather nebulous plans but few have adopted a fiscal program to cover the purchase of new equipment, business promotion and expansion in the post-war period.

One is useless without the other. The financial ability to swing a program of post-war rehabilitation is important. Setting up post-war reserves now is an investment in free enterprise and maximum employment.

Reserves on the Books

Many concerns have reserves on their books, which were adequate in normal times, but are below par today because our war economy has distorted normal business. The first step is to determine where you stand on reserves now, then proceed from there. In some organizations, reserves are just "sleeping dogs," bookkeeping entries charging current profit and crediting reserves. Not much attention is paid to them. In normal times, this could be condoned because the replacement of old equipment went along smoothly enough. When new equipment was purchased, the reserve covering it was closed out and a new reserve opened for the replacement.

From now until stability returns, reserves must cover a wider field. Those who do not make provisions accordingly are not doing a good managerial job.

Some concerns are using equipment now that has been written off the books since Pearl Harbor. Under normal conditions, they would have replaced it. As it stands, they may have to get along with it for some time to come. After the last bomb has fallen there is no assurance that all restrictions will be lifted. Even if they were, manufacturers will need

By FRED MERISH

• • •

time to produce and deliver new equipment. Considering the tremendous demand that may be expected, it may be some time after war's end before you get the handling equipment, trucks, machinery, tools, fixtures, etc., that you and thousands of others will need in the post-war period for top-flight operations.

In the Interim

In the interim, how do your books reflect the operation of that old equipment? In most cases it seems to be customary to record only repairs and let it go at that, because the balance sheet does not show the equipment written off. It is "out," figuratively. Reserves have offset its cost. But, today, many overlook an important consideration.

When equipment is written off the books, depreciation charges covering it no longer appear in costs. This doesn't happen so often in normal times because replacements are usually purchased by the time the old equipment is written off and this automatically opens up new reserves so that a depreciation charge is continued in costs. But, what is happening today?

Equipment Write Offs

Equipment written off during war years can't be replaced in many cases. No depreciation charge is entered in costs although your customers get the use of your machines and trucks the same as before the write-offs. Under the circumstances, your prices are too low; for in most instances you are required to maintain the same prices as formerly. However, in cases that show additional profit relatively few firms set aside the difference for post-war expansion, modernization or promotion. This is where post-war reserves come into the picture. They assure you something "in the kitty" when the post-war period arrives and you are able to buy new equipment and need funds to invest in the necessary promotions that will get you your share of the profitable post-war business.

In the meantime, your selling prices cover these reserves. The sum to be credited depends upon your post-war plans. It will differ with the business so we cannot give specific coun-

sel here but venture to believe it serves a useful purpose to direct attention to the necessity of taking action along these lines at this time.

Reserves and Taxes

Reserves do not represent actual cash, some will contend, so we may set aside reserves for post-war operations but not have the money to finance them. True. Reserves are not necessarily cash. However, if properly handled, they should increase your bankroll. Their purpose is to provide recordings to substantiate tax deductions for depreciation and to see that your costs include adequate charges for depreciation and other contingencies pertaining to operation.

You may have \$50,000 in reserves on your books at war's end and not a nickel in the bank but that is a matter of bad management, rather than a weakness in the practice of reserve accounting. One purpose of this article is to clarify this phase of accounting and to show how this essential may be handled properly at this time when it is so vitally important.

Advantage of Reserves

Some managements seem to have only a vague idea of reserves so we offer this simple explanation. Theoretically, if you buy equipment for \$1,000, and depreciate it at \$100 annually, by charging current profit and crediting a reserve for depreciation, and then include this \$100 in selling prices for the year, which will come about automatically if your sales cost is based on current overhead, you should retrieve the investment in 10 years and it will find its way into your bank account. Then you can take that \$1,000 and buy replacement equipment. Usually, however, the money is deposited with other funds collected, the cash is disbursed as needed, and the recovered investment is not set aside in a separate fund.

Nevertheless, you collect more money from customers by using reserves, even though you do not earmark the piecemeal return of the cost of your depreciable assets. You may freeze this retrieved investment in a fund by earmarking it as such, separating it from your current cash, but such funds, called sinking funds, are usually set aside to reduce long-term obligations. If the cost of sales include post-war contingencies of one kind or another, it may be assumed that current cash will be increased to cover them, provided a business is managed properly.

Post-war reserves are being set up to cover one or more of the following things:

1. **Inventory losses.** These may be caused by price declines at war's end; the disposal of unadaptable, obsolete or excessive war materials; the conversion and salvage of, obsolete deteriorated or otherwise useless non-war materials, frozen during the war.

2. **Losses on accounts receivable.** Credit is based largely on income, hence, many employed at war work are being given credit today. If the income of these debtors is cut or stopped at war's end, the creditors may suffer heavy losses or experience higher collection expense. If directly or indirectly, your wares are being sold to consumers on credit, your losses from this source may be higher after the war and it is wise to "cushion" this hazard now with a post-war reserve.

3. **Reconversion costs.** What it may cost to reorganize and get going on peacetime production again. Reconversion during the post-war period may cost more than the expense of conversion to war production.

4. **Post-war promotional expense.** It will take money to advertise and sell old trade-marks and exploit new products.

5. **Forced obsolescence.** To cover equipment not written off the books, but old before its time, because of improved equipment and products born of the war.

6. **Accelerated depreciation.** Equipment being worked day and night depreciates at a higher rate than equipment under ordinary operation. If rates were set before the production overload, the write-off should be more during the war years. But, in many cases, this excess isn't computable until after the war. A post-war reserve is the adjusting factor.

7. **Decrease in plant value.** This can be caused by reduction in capacity resulting from a drop in volume after the war.

8. **Separation allowances.** Bonuses may have to be paid to employees who are discharged at the termination of the war.

9. **Forced sales.** Equipment bought for the emergency may not be of use after the war and may have to be sold.

10. **Deferred repairs and maintenance.** Deferred because of all-out production. Deferred repairs are always more costly than repairs made immediately.

11. **Amortization.** Some war expansion costs may not be entirely absorbed by war's end.

12. **Renegotiation loss.** The possibility of loss due to renegotiation is a factor with many firms.

Salvage, Plus . . .

Segregation of metals by alloy types, throughout all production stages, is the key to the efficiency of a comprehensive salvage program which recovers nearly 800 tons of scrap metals per month at the Bendix Products division of Bendix Aviation Corp., South Bend, Ind., it was disclosed by H. F. Bundy, salvage manager.

During an average month the plant salvages 100,000 lb. of cast iron; 160,000 lb. of aluminum in 11 different alloys; 35,000 lb. of magnesium in 5 alloys and 15,000 lb. of brass in 3 alloys. Marked containers are used to collect and segregate metals of various alloys—from machines to loading platforms.

Recently broadened to insure total salvage of paper on a "don't burn anything" policy, Bendix Products' salvage program now recovers each month 84 tons of paper, Mr. Bundy stated.

A Current Income Charge

Sound accounting generally demands that current revenue be charged with all reasonably determinable costs and losses fairly applicable thereto. Wartime losses, costs and contingencies should be charged to the war period via the post-war reserve.

Out of 377 concerns queried about post-war reserves, 255 charged current income, 21 charged net worth, 20 transferred credits from other reserves, and 81 reported no experience. From this you see the practice recommended in this article is prevalent and worthy of consideration.

Not a Hardship

In many cases, these charges to current income are not a hardship. Equipment written off and a depreciation charge for it continued in costs, as mentioned previously, does not reduce profits, yet, provides a credit for post-war reserves.

Many organizations are affecting economies in various ways. There is less sales and collection expense. Overhead per sales dollar is down for those working full capacity. Managements can build up post-war reserves for modernization, expansion and promotion now if they use such savings for setting up reserves.

Some business men may feel that they are earning more today than in pre-war days, taxes considered, but this may be due to lower commercial expense because sales come easier than in prewar days. If you are in that boat, reserves for post-war operation will correct your

vision by bringing current profit in normal zone.

Tax Laws

Tax laws permit deductions only in connection with reserves for depreciation and bad debts. You can't take deductions for post-war reserves. There is confidence in some quarters that Congress may authorize such deductions, consequently, it is advisable to begin such recordings now because they may help you justify a war-time tax saving.

Furthermore, many concerns are reserves to keep the value of their net worth at a conservative figure even though the tax laws do not consider them in calculating tax liability. One organization has issued a hand sheet showing a post-war reserve of \$500,000 to cover a possible loss on inventory after the war.

Every progressive management should plan for post-war activity now. This should include an estimate of the outlay needed for deferred war costs, post-war modernization, expansion and promotion and, if due, the 10 per cent refund on the excess profits tax. You may "guesstimate" wrong but a flexible plan is better than wondering what it's all about when the Armistice comes quits. Peacetime production will come back only gradually.

A Post-War Priority

For a time, demand for new equipment will exceed supply. Those who have written off equipment or who have over-worked equipment not written off, may not be able to get replacements the day the armistice is signed. But the ones who will be served first will be those who can put their money on the line. Post-war reserves will help them to get this priority, and give them a big advantage.

Some businessmen feel that the government may step in and lend them money for post-war operations. From 1933 to 1942, Congress considered 390 bills on behalf of small business but few businessmen have experienced any tangible results from legislative effort in their behalf. War industries may get loans from the government for reconversion but those turning out civilian products had better dig up their own capital by means of post-war reserves.

Use War Bonds

"If post-war reserves help swell my liquid funds now, why not freeze this portion of my cash?" a business executive recently asked. Our reply was this: O. K. Open an account for the desired sum. Call it a fund for post-war promotion, and invest this money in war bonds until needed.

WHEN you analyze the results of business operations, give thought to working capital as well as to sales, profits and net worth. Compare the ratio of working capital from month to month, the same as you compare the trends on sales, profits and

costs. This will keep you posted as to whether the ratio is favorable from period to period.

Adequate working capital indicates that a business is not too heavily mired in fixed assets, that it has not suffered heavy losses

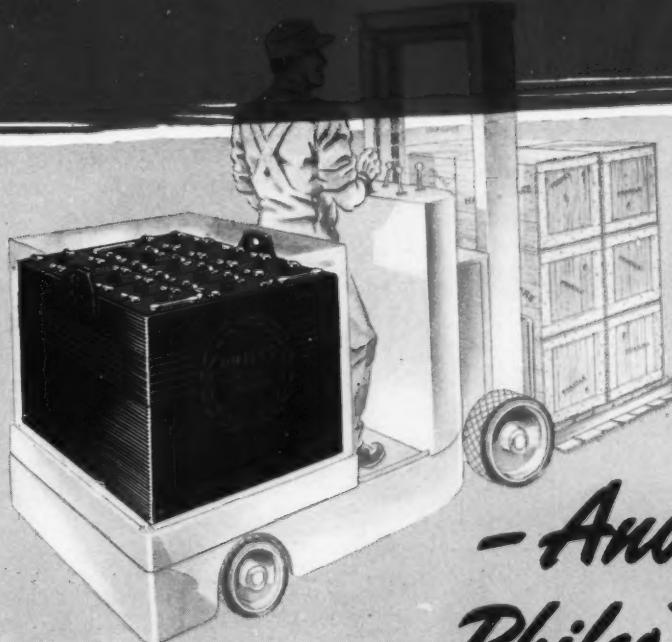
from operations, two main factors that drain working capital in normal times and today price ceilings and high taxation are additional drains.

Fred Merish, *D and W*, April, 1944

PHILCO

Again in the News

**THE BATTERY
THAT GIVES
30% LONGER LIFE**



*- Another
Philco "First"*

Revolutionary new

PHILCO "THIRTY"

WITH 30% LONGER LIFE
RADICALLY CUTS
MOTIVE POWER BATTERY COST!

- ★ Reduces depreciation and maintenance
- ★ Gets more work done
- ★ Packs a terrific wallop

What every materials handling man wants in a storage battery is packed into this amazing new Philco "Thirty."

In high capacity, it is tops in the field—assuring the maximum tonnage every shift. Even after long hours of heavy work, it has the reserve power to climb ramps and grades, and complete the shift in high.

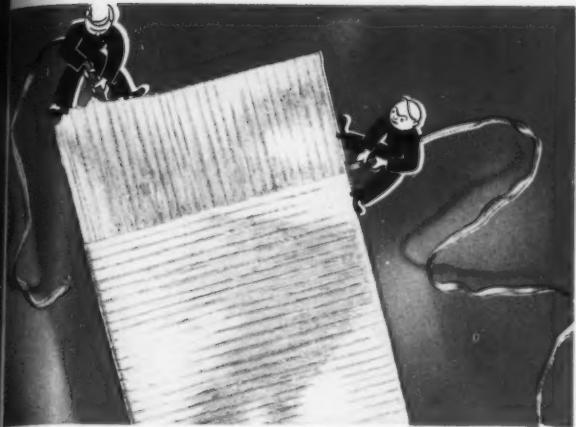
But the feature which sets the new Philco "Thirty"

entirely apart from all other batteries you have known, used, or even heard of before—is its phenomenal long life. 30% longer life—often more—has been demonstrated time after time in exhaustive field tests.

Here, then, is more than just a new and better battery. Here is a new standard of battery performance—and a new yardstick by which all battery values must now be judged.

That's why it will pay you to get posted on this great new Philco Battery which is now available in certain types and limited quantities. Full information gladly will be sent on request.





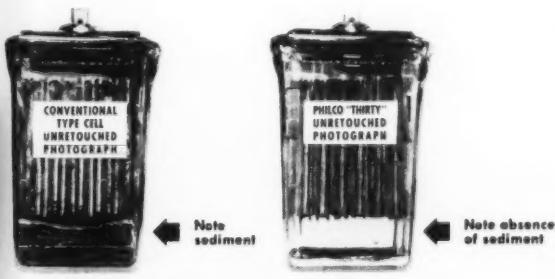
REVOLUTIONARY NEW PRINCIPLE OF PHILCO FABRICATED INSULATION*

Only PHILCO "THIRTY" has it!

Here is a brand-new construction principle and an ultra-modern application of a proven insulating material. Both the results of Philco pioneering! This material is fabricated glass tape wrapped around the positive plates in two layers, first vertically and then horizontally. Even a single layer of this glass tape insulation has been found to have better retentive power in holding the active material in the plate, than the standard glass mat! And—of course, the plates of the Philco "Thirty" are further protected and insulated with the time tested Philco slotted rubber retainer and rubber separator.

*Patent applied for

YOU GET
IT FIRST WITH
PHILCO



B PROVED BY YEARS OF FIELD AND LABORATORY TESTS

As proved in scores of service tests, these unretouched photographs show what happens when a Philco "Thirty" cell (A) and a conventional type cell (B) are tested side by side in motive power cycle service, charged and discharged in series in the same circuit. Glass jars were used here only to permit observation. Note almost total absence of sediment in the Philco "Thirty", while the sediment space of cell B is filled. Cell B has delivered its normal life expectancy and is worn out—while the Philco "Thirty" still delivers over 100% of rated capacity, with a long margin of serviceable life still to go.

THE CLIMAX OF 50 YEARS OF LEADERSHIP IN BATTERY RESEARCH AND ENGINEERING

The procession of Philco "Firsts", covering the whole field of motive power and stationary batteries, has set the pace in modern battery design. Check the developments, which have contributed most to today's higher capacities, increased efficiency, longer life, and lower cost—the record shows you get it first with Philco.



PHILCO VITRABLOC

A development for telephone, control and standby service, that materially increases battery room capacities.



PHILCO FLOTÉ

The battery that exerted a major influence on the wider use of full float service, by eliminating low cells. More efficient...more economical to maintain.



PHILCO HIGH CAPACITY CELLS

Through modern plate design, Philco showed the way to increased capacity without increase in over-all battery dimensions. A tremendous advantage in many motive power operations.



PHILCO

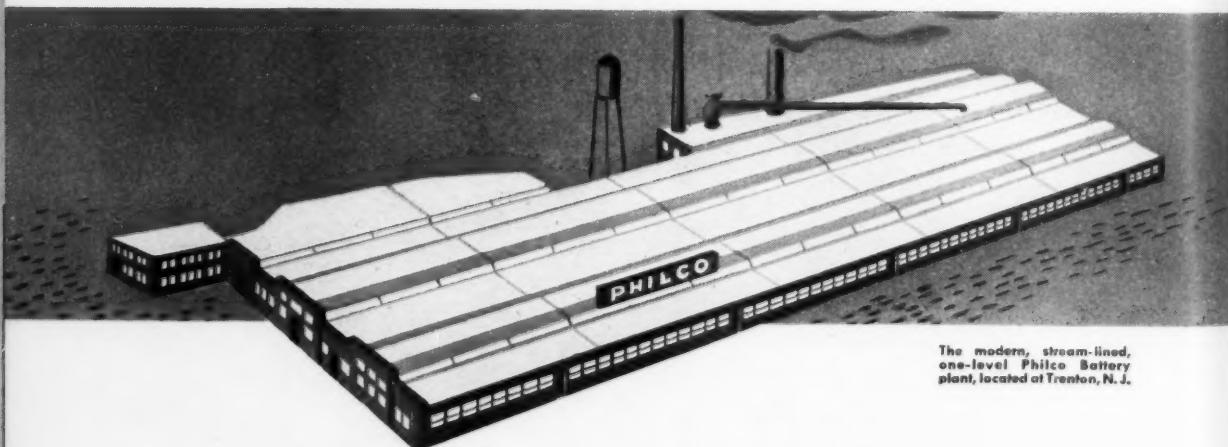
BUILT FOR MODERN DEMANDS BY THE LEADER IN MODERN BATTERY ENGINEERING

As described in the foregoing pages, Philco is ready, today, with the advanced battery performance and long-life economy you'll need in your post-war operations. With model manufacturing facilities, Philco is ready to produce these superior batteries in greater volume than ever before.

In the complete Philco line are modern

storage batteries for all industrial applications—industrial trucks, mine locomotives and shuttle cars, diesel starting, railroad car lighting and air conditioning, control and power, telephone service and signal systems.

On your next purchase of batteries specify a modern Philco.



The modern, stream-lined, one-level Philco Battery plant, located at Trenton, N.J.

• **PHILCO CORPORATION**
STORAGE BATTERY DIVISION • TRENTON 7, NEW JERSEY

For 50 Years a Leader in Industrial Storage Battery Development

Waterways and Terminals . . .



New Ice-Breaker Nearly Ready

Nearing completion at the yard of the Toledo Shipbuilding Co., the \$10,000,000 ice-breaking cutter Mackinaw will be delivered to the U. S. Coast Guard between Dec. 15 and Jan. 1. This is the costliest ship ever built on the Lakes, and will be as powerful as any ice-breaker in the world. The crew of 12 officers and 164 men were assembled during November, and present plans are for the ship to be based this winter at Sheboygan, Mich., near the tip of the lower peninsula and a few miles from the Straits of Mackinac. The Straits, through which the waters of Lakes Michigan and Huron shift all winter long, piling up great windrows of ice, usually represent the first major ice-breaking job when Great Lakes shipping lanes are opened in the spring.

The Mackinaw represents many innovations in ice-breakers. She has the heaviest plates of any ship on the lakes, thickness ranging to 1½ in. She has a propeller at the forward end and two aft on which her Diesel-electric engines can exert well over 10,000 horsepower in pushing through ice and towing, at the same time, the largest freighter on the lakes. She has a beam of 72 ft., is 279 ft. long, and because of her thick hull and heavy engines, a displacement of 5,000 tons when fully fueled. (Kline)

Waterways Operators Form New Assn. "To Promote Harmonious Cooperation"

Ship 'Phone Service To Be Broadened

The Bell Telephone Co. is planning to extend its radiotelephone service after the war to overseas carriers and to off-shore and harbor shipping. F. M. Ryan, radio engineer for the American Telephone and Telegraph Co., told the Federal Communications Commission recently.

Testifying at a frequency allocation hearing, Mr. Ryan said the service which was available to ship tourists in peacetime may be enlarged, if frequencies are available, to provide ship-shore communication with harbor tugs and other craft, and "to aircraft operating over long distance overseas routes."

Wins Shield

The Lake Carriers Assn. at a dinner recently was awarded the United States Coast Guard's security shield of honor, becoming the first inland organization to receive the award. Vice-Admiral Russell R. Waesche, commandant, made the presentation, and Louis C. Sabin, vice president of the group accepted it. (Kline)

U. S. Harbors Obsolete, Harris Declares, Urging Improvement of All Facilities

Calling for an early start on a comprehensive program of port facility improvement in this country, headed by a \$2,000,000,000 project for "lifting the face" of the Port of New York, Basil Harris, president of the United States Lines, warned recently that the United States faced the real danger that her ports may fall far behind those of many other nations in the efficiency of their facilities.

Mr. Harris pointed out that the war had severely damaged the facilities of such cities as London, Le Havre, Cherbourg, Rotterdam, Hamburg and Bremen, and that these ports would be reconstructed along modern lines with the finest and speediest of facilities geared to modern loading and unloading, leaving our ports almost obsolete.

Speaking as chairman of the panel on Development of Trade Opportunities, at the second day's session of the 18th annual meeting of the Propeller Club of the United States

and the American Merchant Marine Conference, in New York, Mr. Harris asserted that this country faced the prospect of severe damage to post-war foreign trade prospects unless such a port development program were launched now.

He contended that this country's present port facilities were of "Victorian vintage," that they would be completely out of harmony with our streamlined merchant fleet after the war, and that they would hamstring a growing foreign trade carried in a speedier shipping industry.

"I am fully aware of the magnitude of such a program and its cost," Mr. Harris said, "and it has been suggested that such cost cannot be levied on the port municipality alone, since a port has a value to the whole country and not to one city. But I firmly believe that a port modernization program must be undertaken as soon as feasible if the United States is to hold its own in world trade and world shipping."

The American Waterways Operators, Inc., has been organized as a non-profit corporation with executive offices at 1319 F St., N. W., Washington 4, D. C. Chester C. Thompson is president and John H. Eisenhart, Jr., secretary. Regional offices have been established in Chicago, New Orleans and Pittsburgh. Other regional offices are expected to be opened in the near future.

The object and purposes of the organization as set forth in its constitution and by-laws are:

"(a) Cooperative action in the consideration and solution of problems of management and policy affecting the operation and welfare of inland waterways transportation (including intracoastal and harbor areas).

"(b) To promote harmonious and friendly cooperation among all waterway operators; and to gather and disseminate information for their benefit.

"(c) To act as statutory agent for its members in Washington, D. C."

The action of the organization will be advisory only. Any waterways operator, whether an individual, firm or corporation in continental United States having some or all of the problems of such operators is eligible for membership.

Seven regional divisions, which will be in charge of a regional vice president, are contemplated as follows:

Regional Division 1. Mississippi, Missouri and Illinois Rivers and tributaries. Regional Division 2. Ohio, Tennessee and Cumberland Rivers and tributaries. Regional Division 3. Gulf Intracoastal Waterways (Rio Grande to Key West, Fla.), including tributaries and connecting waterways and the Mississippi River south of North Baton Rouge, also the Warrior-Tombigbee System. Regional Division 4. South Atlantic Intracoastal Waterways, tributaries and connecting waterways (Key West, Fla., to and including Norfolk, Va.). Regional Division 5. North Atlantic inland waterways, including harbors, lakes, bays and sounds (Norfolk, Va., to Canadian Border), and the western terminus of the New York State Barge Canal. Regional Division 6. Pacific Northwest inland waterways, Canadian Border to Oregon-California State Line. Regional Division 7. California inland waterways, Oregon-California State Line to Mexican Border.

If any member operates in more than one regional division, it will be considered as being identified with the regional division of its operation, which it shall elect.

Distribution Worldwide

Cooperative League of U. S. A. Plans Trade and Credit on Worldwide Scale

The Cooperative League of the U. S. A., at its 14th biennial Congress in Chicago, recently, endorsed a proposal for immediate organization of an international business association to engage in commercial trading operations on a worldwide scale in accordance with the principles of the cooperative movement.

Approval was given also to a recommendation that an international cooperative credit institution be established to assist in financing this international cooperative trade, which at the start, will be limited to dealings in petroleum products, food and related supplies.

Incorporation of the new business is to be effected under the cooperative statute of the District of Columbia and effort was being put forth to have all necessary documents filed on Dec. 21 of this year, a date which marks the 200th anniversary of the start of the consumer cooperative movement.

Outlining the plan for the proposed international venture, Howard A. Cowden, president of Consumers Cooperative Assn., Kansas City, Mo., and chairman of the League's Committee on Cooperative Reconstruction, declared the undertaking is proceeding "on the assumption that the world is one community," as indicated by developments in communications and transportation, as well as the play of economic forces, "which are admittedly worldwide in their effect and influence."

"To fail to enter the international arena in a substantial way commensurate with the great size and the enormous resources of the cooperative movement," Mr. Cowden continued, "is to leave the international field to private profit cartels and to cartels managed by government.

"It is a safe assumption, perhaps, that the matter of import and export will never again be carried on under conditions that prevailed in other days. State trading departments in Great Britain, Russia, and other countries will undoubtedly have a tremendous influence on the way our own foreign trade will be conducted.

"Cooperators know that private profit cartels, left to their own devices, would be the death of political democracy. Nor are cooperators naive enough to believe that world trade agreements in the hands of governments, will be automatic, self-regulatory devices. . . . It is another all-compelling reason why cooperatives must enter the international field in a substantial way."

Another recommendation adopted

• Re-establishment of the principle and practice of equal trading opportunity is the first duty of America's postwar commercial policy.

—Laurence de Ryck
Economics, Foreign Trade Instructor
Occidental College, Los Angeles

justed their operations to the tempo of war rather quickly and have done, by and large, a most excellent job in the service of supply."

Meanwhile, an aggressive campaign to expand the consumer cooperative movement in this country was determined on at the Chicago meeting. Keying this project were the words of Murray D. Lincoln, Columbus, O., president of the Cooperative League.

"Our test flight is over," said Mr. Lincoln, in addressing the gathering. "We must put cooperatives into mass production. We must blanket the cities with cooperative enterprises" (Slawson.)

called for a study and report "on conditions the cooperative movement may be expected to meet in international trade and transport, including recommendations on how best to meet the dangers inherent either in private profit or government cartels."

American cooperatives, Mr. Cowden revealed in his convention address, have been working closely with the government in its lend-lease program and that the government in its turn has had close relations with the strongly and extensively organized cooperative societies in Europe. A commission was authorized to continue this contact with cooperatives in the devastated countries through the United Nations Relief and Rehabilitation Administration.

Nearly one-fifth of supplies moving in lend-lease has been originated by cooperatives in the United States, Mr. Cowden stated. They have, he said, "furnished lubricating oil, high octane gasoline, lumber, canned foods, dairy products, grain, cotton, wool and many other products vital in furthering the war effort. The cooperatives ad-

Fundamentals of Prosperity

In an address given before the National Foreign Trade Council, Eric A. Johnston, president, U. S. Chamber of Commerce, outlined in three classifications, "Fundamentals for Prosperity." They are:

"First. Absolute necessity for vastly expanded postwar trade among nations. United States and many other countries must raise their sights to what would have been previously considered fantastic heights. If we merely scramble for the old dwindling volume, somebody's going to get hurt—perhaps fatally. In today's enlightened America, too, many people still consider foreign trade as pretty much of a luxury.

"Second. If there is going to be larger volume of foreign trade, we must have more prosperous people everywhere. You can't sell goods to the penniless or the bankrupt. Nor do bare hands produce much wealth. We will not make foolish loans as after the last war. In extending credit this time, we should make sure it will be used to produce jobs and new wealth and thereby provide higher standard of living and means for repayment.

"Third. A strong, prosperous, free America. Above everything else we should promote all domestic measures to encourage high levels of production, employment and wages in America. Our very power and might will help to keep much of the rest of the world afloat."

\$54,000,000 Invested On Mexico-U. S. Railway

Don Vidcente Sanchez-Gavito, Mexican Embassy counselor, has made known that Mexico is spending \$54,000,000 on railroad modernization program to speed war supplies to the U. S. and at the same time prepare for predicted heavy postwar trade and tourist traffic. Shipments of critical ores, alcohol, guayule rubber and other materials has increased 300 to 400 per cent since Pearl Harbor and it is expected that postwar U. S.-Mexico freight traffic will continue at this rate, he said.

According to the *Chicago Journal of Commerce*, Sr. Sanchez-Gavito has stated that American industry should avail itself of postwar rail opportunities in Mexico by building more plants near the source of raw materials to manufacture products for Latin-America.

Italian Shipments Here Valued at \$1,200,000

Reports from Washington say that Italian merchandise valued at \$1,200,000 and comprising three shipments (largest from Italy since the Allied invasion) recently arrived here, will be sold by U. S. Commercial Co., FEA subsidiary, as Italy's Allied commission agent.

Listed as strategic imports, the goods will be distributed by the FEA as directed by the WPB and WFA, as well as other goods to be sold importers for disposal in the open market, according to the FEA.

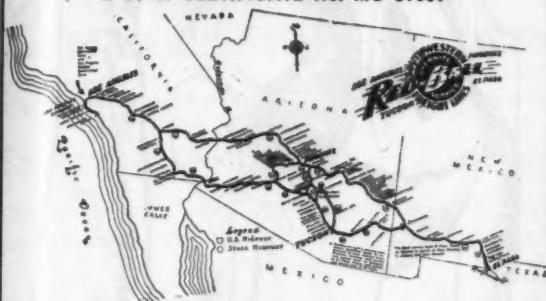
Forecast of 1/2 Billion For Russian Exports

Under normal conditions, Russia will be able to export on an average at least \$400,000,000 to \$500,000,000 in goods annually for 10 years according to E. C. Ropes, chief of the Russian unit of the bureau of foreign and domestic commerce of the Department of Commerce.

Southwestern Freight Lines

**DEPENDABLE INTERSTATE
MOTOR FREIGHT TRANSPORTATION
Between Los Angeles — Phoenix &
Tucson, Ariz., and El Paso, Texas**

I. C. C. CERTIFICATE No. MC 59069



"Map of Direct Line Service" Daily Schedules (Except Sundays)

"Our Shippers' Preference Is Our Best Reference"

LOS ANGELES, CALIF.
2045 Violet Street

PHOENIX, ARIZ.
230 North 9th Street

EL PASO, TEX.
601 West San Antonio St.
Main 2750

TUCSON, ARIZ.
414 No. 5th Ave.

**INTERNATIONAL TRUCK
SERVICE — as Near You as
Your Phone**



International Truck Service is available at branches and dealers in key cities from coast to coast. You'll find that service listed in your classified phone book.

Call the dealer or branch near you and let them help you keep your trucks on the job.

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue, Chicago 1, Illinois

INTERNATIONAL TRUCKS

TO MEET EXACT TRUCK NEEDS



**PLATFORM and HAND
NOSE TRUCKS for various
Warehouse and Cargo use.**

Write for details and prices.



Q8 Trucks with round corners, no projecting parts.

ORANGEVILLE MFG. CO.
Orangeville (Col. Co.), Pa.

Fig. 202-4
A regular
Warehouse
Truck



... but it can't take off
from your
shipping room floor!

Ship When Ready for Fastest Delivery

The end-of-the-day rush at the airport may nudge your shipments out of the race, defer them until a later plane. So phone for a pick-up the moment the label is on ... or before! That's the way to get fastest delivery!



SPECIFY AIR EXPRESS
A Money-Saving,
High-Speed Tool
for Every Business

With additional planes now available for all important types of traffic, 3-mile-a-minute Air Express directly serves hundreds of U.S. cities and scores of foreign countries. Thousands of shippers are saving substantial sums through Air Express, employing its economy and efficiency in an ever-increasing number of ways.

WRITE TODAY for "Quizzical Quiz"—a booklet packed with facts that will help you solve many a shipping problem. Dept. PR-12, Railway Express Agency, 230 Park Avenue, New York 17, N. Y., or ask for it at any local office.

AIR EXPRESS
AIR EXPRESS
Gets there FIRST

Phone RAILWAY EXPRESS AGENCY, AIR EXPRESS DIVISION
Representing the AIRLINES of the United States

How are you at Chopping Trees?



No, this is no joke. Many businessmen have volunteered to aid the paper shortage by spending vacations from their companies in the timber country, helping out on the man-power problem in the paper pulp industry.

Not that you have the time to do this. Nor that tree-chopping is exactly in your line. But, until the man-power shortage in this vital industry is over, until our armed forces no longer are spread all over the world where food, ammunition and medical supplies must be shipped them in paper protection

wrappers, there is a chopping job you must do. You must chop the use of paper in your business.

Sure, you've done plenty of this in the past months. But right now the need for paper is greater than ever. So the government asks you again to examine paper usage in your firm, see if you can't make even further savings.

And don't forget that baling wastepaper and sending it to a reprocessing plant is a most important part of the paper conservation job.

Remember
**PAPER IS
WAR POWER**

USE LESS PAPER — SAVE ALL WASTEPAPER

AMERICAN EXPRESS AGENCY, THE EXPRESS DIVISION
This advertisement contributed by this publication and prepared by the War Advertising Council in cooperation with the War Production Board and the Office of War Information.



SAVE MONEY

To save time and money in handling materials do it on skids or pallets in units of 2 to 5 tons with battery industrial trucks. Send for booklet "Modern Material Handling."

ADDRESS EDISON STORAGE BATTERY DIVISION,
THOMAS A. EDISON, INC., WEST ORANGE, N. J.

Edison ALKALINE BATTERIES

Equipment — Services — Supplies

Classified Index to General Advertisers of Equipment, Services and Supplies for Shippers, Carriers and Warehousemen

AIR EXPRESS

Air Transport Association of America	53
American Airlines, Inc.	35
Braniff Airways, Inc.	11

ALARMS (Fire)

American District Telegraph Company	114
---	-----

BAGS (Caster)

Bearse Manufacturing Company	59
------------------------------------	----

BARREL TRUCKS (Hand)

Sabin Machine Company	60
West Bend Equipment Corp.	60

BATTERIES (Storage)

Edison Stge. Battery Div. Thomas A. Edison, Inc.	55
Electric Storage Battery Company	41
Philco Corp. Stge. Battery Div.	47 to 50

BODIES (Truck & Trailer)

Gerstenslager Company	43
Herman Body Company	5

CARGO PLANES

Curtiss-Wright Corporation	Second Cover
Lockheed Aircraft Corporation	27 to 30

CASTERS (Truck)

Darnell Corporation, Limited	55
Nutting Truck & Caster Company	61
Thomas Truck & Caster Company	61

CLOCKS (Time & Watchmen's)

American District Telegraph Company	114
---	-----

CONVEYORS (Gravity)

Filter Paper Company (Conveyor Equipment Div.)	56
---	----

When writing advertisers please mention D and W



DARNELL CASTERS

these low-cost floor protection products have been made to give you a long life of efficient, trouble-free service.

FREE MANUAL

DARNELL CORP LTD

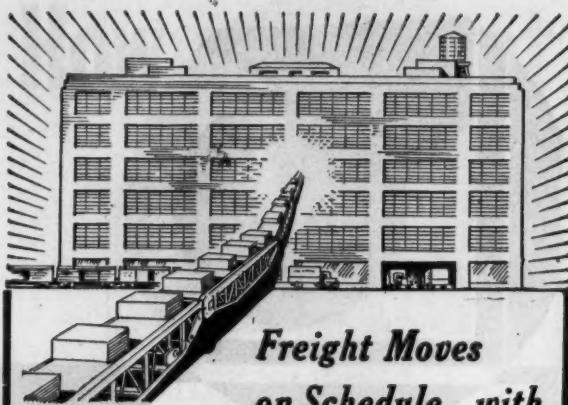
LONG BEACH 4, CALIFORNIA

60 WALKER ST. NEW YORK 13 N.Y.

36 N. CLINTON, CHICAGO 6, ILL.

A SAVING AT EVERY TURN





*Freight Moves
on Schedule...with
Conveyors by PORTABLE*

Extreme flexibility of use makes freight type Portable Conveyors your best material handling bet. Portables break costly bottlenecks on the loading platform, put every available cubic foot of storage space to work for you. Portable's ability to load and unload, stack, pile and move freight is unmatched for speed, economy and daily dependability.

Freight type Portables can be used in dozens of ways to lick the toughest material handling set-up. Want evidence? Write for complete information.

Portable Machinery Division

A. B. FARQUHAR COMPANY
203 Duke St. York, Pennsylvania

THEY'RE TROUBLE-FREE

because of:

- ★ Ball bearing rollers, factory lubricated
- ★ Lattice-truss frame
- ★ Quality workmanship throughout

Write for data and prices, naming size and service conditions

GASOLINE OR ELECTRIC MOTOR DRIVEN—20 TO 35 FT. LENGTHS
—ALSO LOW HEADROOM AND SPECIAL PURPOSE CONVEYORS



HAIS CARGO CONVEYORS
LIGHT, MEDIUM AND HEAVY DUTY

GEORGE HAISS MANUFACTURING CO., INC.

Canal Place and E. 144 St., New York 51, N. Y.
Builders of High Grade Materials Handling Equipment for over 50 Years

FILCO

CUT COST • INCREASE SPEED!
EASY-RIDE CONVEYORS

This modern gravity conveyor carries cases or cartons to any department speedily and efficiently! Sturdily constructed reversible curves, straight sections. Permanent or portable; with or without adjustable supports. Our engineers can solve your problems—write us your requirements and ask for illustrated folders.

EQUIPMENT DIVISION
The FILTER PAPER Co.
58 E. 24th St. Chicago

CONVEYORS (Portable or Stationary)

Farquhar Company, A. B.	56
Filter Paper Company (Conveyor Equipment Div.)	56
Haiss Manufacturing Co., Inc., Geo.	56
Mercer-Robinson Company, Inc.	57

COVERS (Piano & Refrigerator)

Bearse Manufacturing Company	59
New Haven Quilt & Pad Company	114

CRANES (Industrial Truck)

Baker-Raulang Company	1
Hyster Company	18
Jaeger Machine Company	57
Mather Manufacturing Co., Inc.	4
Mercer-Robinson Company, Inc.	57

DECALS

Meyercord Company	6
-------------------------	---

DOLLIES

Nutting Truck & Caster Company	61
Thomas Truck & Caster Company	61

DOOR OPENER (Box Car)

Mining Safety Device Company	58
------------------------------------	----

Wet Flashlight Battery

Rechargeable wet flashlight battery for industrial use built on the principle of the auto wet storage battery, valuable for operations of continued, steady usage has been announced by The B. F. Goodrich Co., Akron, O. The company claims wet storage batteries are more economical than dry cells for volume service, and sells complete recharging equipment, together with tester, as part of its program.

Eighteen months of tests in its own and other large industrial plants proved that the miniature wet battery answers the expendable dry cell problem in many industrial operations, particularly now when dry cells are in critical supply and when long life is important to uninterrupted flashlight service, the company says.

New type wet cell batteries placed in tests in its Akron factories 18 months ago are still giving excellent service, the company reports. The batteries, which give the same light as the industrial type dry cells, are being sold with a six months' guarantee which authorizes replacement if failure is not due to abuse or misuse.

The battery can be used in a standard three or five cell dry battery case with the use of spacer plugs and it has been calculated that users can save approximately \$10 a year on every flashlight maintained, as compared to dry cell operation.

Don't assume you can't get equipment—Inquire.

EQUIPMENT, SERVICES AND SUPPLIES FOR SHIPPERS, CARRIERS AND WAREHOUSEMEN



Veteran Expediters!



Tractor Cranes—Trailer Trucks,
Stacking Elevators. Fork Lift Trucks
Hoisting Units, etc. for Warehouses, Airport
Pier and Yard Service. Literature on Request.

—THE NAME that
CARRIES WEIGHT

MERCER-ROBINSON COMPANY, INC.
30 CHURCH STREET, NEW YORK 7, N.Y.

ELEVATORS (Portable or Stationary)

Mercer-Robinson Company, Inc.	57
Revolator Company	58
Sedgwick Machine Works	59
West Bend Equipment Corp.	60

END GATE (Elevating)

Fruehauf Trailer Company	12
--------------------------	----

ENGINES (Diesel)

International Harvester Company	53
---------------------------------	----

FIRE EXTINGUISHING EQUIPMENT

General Detroit Corporation	7
-----------------------------	---

FLOOR PATCHING & RESURFACING

Flexrock Company	58
------------------	----

FORK TRUCKS

Baker-Raulang Company	1
Hyster Company	18

FREIGHT TERMINALS

Harborside Warehouse Company, Inc.	Back Cover
Manhattan Storage & Warehouse Co.	8

GENERATORS (Gas-Electric)

Ready Power Company	Third Cover
---------------------	-------------

When writing advertisers please mention D and W

JAEGER "FLEET FOOT"

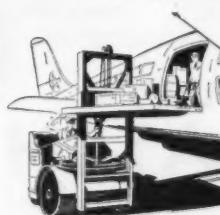
Crane and Tier Loader

5 TONS CAPACITY

GET
POST-WAR
EFFICIENCY
TODAY!



**THIS NIMBLE, VERSATILE, FAST
SWING-LOADER CUTS HANDLING
AND MOVING COSTS . . .**



TIER LOADER ATTACHMENT
Telescopic to 12 ft., swings 90° to either side, operates in any position and very narrow spaces.



PLENTY OF TRACTION
to move loaded trucks, or spot cars.



Ideal for work around dock and pier shed; can "turn on a dime."

Telescopic 12-18 ft. boom (or tier loader if desired) lifts 5 tons faster than 1 ft. per second, swings 90° to either side without outriggers to pick up or deposit load, totes it at speeds to 12 m.p.h. Will pass 6½ x 8 ft. doorway, can turn in 10½ ft. floor space, push or pull loaded trucks or spot cars.

Built by world's largest producer of standard hoists—Jaeger self-energizing clutch controls 5 ton load with a mere touch, has 4 speeds for travel and all boom operations, instant automatic safety brakes, standard automotive controls, clear vision of all work, no load ever above operator—fast, accurate and safe. Boom load centered on driven wheels for maximum stability and traction. Puncture-proof cushion tires or dual pneumatics as service requires; gasoline power.



For full details
ask for Speci-
fication CL-44.



**THE JAEGER
MACHINE COMPANY**

330 DUBLIN AVENUE • COLUMBUS 15, OHIO

HOISTS • WINCHES • CONCRETE MIXERS • PAVING EQUIPMENT



Telescopic models lift to any practical height—100 feet if necessary; collapse to pass under low doorways. Revolvator base permits faster piling and operation in narrow aisles.

**REVOLVATOR
PORTABLE ELEVATORS**
(Reg. U. S. Pat. Off.)

and
RED GIANT LIFTRUCKS

Only REVOLVATOR can give you all the fourteen advantages worth considering when selecting a portable elevator. Let us tell you what these 14 points are. Send for Bulletin DW.

RED GIANT LIFTRUCKS
for use with platform
skids and REVOLVATOR
portable elevators
are safe, durable, economical. Capacities up
to 15,000 lbs.

REVOLVATOR CO.

DESIGNERS AND MANUFACTURERS OF MATERIAL HANDLING EQUIPMENT

396 86th St. NORTH BERGEN, N. J. Since 1904

**HEAVY DUTY
FLOOR PATCH**

It's Plastic! Simply Tamp Smooth . . . Truck Over!

Just the thing for keeping busy industrial floors in smooth repair . . . without interrupting traffic. Unlike old-fashioned resurfacers, INSTANT-USE is ready for service almost the moment it's put down. There is no waiting. To fix holes and ruts, you simply roll a drum of INSTANT-USE over to the hole in the floor, shovel out enough to fill the hole, tamp smooth and then pass traffic over the spot immediately. You'll have a tough, solid, permanent patch that formerly took 24 hours to get. Bonds tight to old concrete. Withstands extreme loads. Immediate shipment.



REQUEST DESCRIPTIVE
FOLDER and
Details of FREE
TRIAL OFFER

INSTANT-USE

FLEXROCK COMPANY

3687 Filbert St., Philadelphia 4, Pa.

Please send me complete INSTANT-USE information and details of FREE TRIAL OFFER—no obligation.

Name _____

Company _____

Address _____



**MONARCH ONE MAN
CAR DOOR OPENER**

One man can open the most binding, balky box car door with the Monarch Car Door Opener. Get greater safety . . . speed loading and unloading schedules . . . order an ample supply to fill your needs today!

PRIORITY NEEDED

\$17.50
EACH

**MINING SAFETY
DEVICE CO.**
Dept. DW,
Bowerston, Ohio



NO
strained muscles
NO
slips or falls
NO
broken arms, legs
or mashed fingers
NO
fatalities
NO
time wasted
NO
"gangs" needed
NO
time lost

Protect Profits with the
**MONARCH ONE MAN
CAR DOOR OPENER!**

JACKS (Lift)

Nutting Truck & Caster Company 61
Thomas Truck & Caster Company 61

LIFTS, SPECIAL (Hand)

Revolvator Company 58

LONG DISTANCE MOVING

Dillner Transfer Company, W. J. Front Cover

MATERIALS (Ind. Bldg. Maintenance)

Flexrock Company 58

MESSAGE CONVEYORS

Sedgwick Machine Works 59

MOTOR FREIGHT LINES

Southwestern Freight Lines 53

MOTOR TRUCKS

International Harvester Company 53
Studebaker Corporation 2
White Motor Company 9

PADS (Canvas Loading)

Bearse Manufacturing Company 59
New Haven Quilt & Pad Company 114

PADS (Kersey)

Bearse Manufacturing Company 59
New Haven Quilt & Pad Company 114



THERE'S MORE THAN ONE WAY TO REDUCE COSTS

If you're one of the many concerned with problems of how best to move men, material and merchandise—and bedeviled by cost reduction problems—we think Sedgwick elevators and dumb waiters can help solve at least some of them.

Sedgwick Electric Freight Elevators, for example, can be built to lift loads weighing well over 100,000 lbs. or loads weighing 2500 lbs. and less, with equal efficiency. Unique safety devices keep the load under control at all times—even if the cables were to break. Simplicity of operation and control—ease of installation, repair and maintenance together with smooth traveling and sure-leveling, are but a few of the advantages of Sedgwick freight elevators.

If you're confronted by perplexing lifting problems—present or postwar—tell us about them. Our engineers will be happy to show you how Sedgwick Elevators and Dumb Waiters help reduce costs by making the movement of men, material and merchandise safer, surer, more economical.

"Men Who Know Are Sold on Sedgwick"

Sedgwick MACHINE WORKS

155 WEST 15th STREET — NEW YORK 11, N. Y.

Elevators • Roto-Waiters • Hoists • Materials Handling Equipment

RACKS (Storage)

West Bend Equipment Corp. 60

REFRIGERATED BODIES (Truck & Trailer)

Fruehauf Trailer Company	12
Gerstenslager Company	43
Herman Body Company	5

RIGGING

Dillner Transfer Company, W. J. Front Cover

SKIDS

Nutting Truck & Caster Company	61
Thomas Truck & Caster Company	61
West Bend Equipment Corp.	60

SNOW PLOWS

Case Company, J. I.	10
Hebard & Company, W. F.	60

Flexite Mix

Flexite, a liquid chemical manufactured under strict laboratory control by Flexrock Co., Filbert and Cuthbert Sts., West of 36th, Philadelphia 4, Pa., used in mixing cement or cement and sand results in a mortar which will do many "difficult and unusual jobs with an effectiveness and speed unmatched by any other material," according to Flexrock. It is recommended for: stopping leaks against hydrostatic pressure; eliminating seepage; pointing up spalled areas; patching and waterproofing pits and concrete pipes; plaster-coating walls; waterproofing below ground or water level; covering exposed reinforcing bars or beams.

When writing advertisers please mention D and W

The First Thought

of the careful, thoughtful, responsible handler of household goods, is

MASTERCRAFT FURNITURE LOADING PADS and VAN EQUIPMENT

for THEY ARE DESIGNED
FROM A PRACTICAL VIEW-
POINT AND CONSTRUCTED
SO DURABLY AS TO IN-
SURE THE UTMOST IN
ECONOMY.

Write today for prices on Mastercraft furniture pads, protective covers, refrigerator pads, floor runners and carrying straps.

BEARSE MANUFACTURING CO.

Incorporated 1921

3815-3825 CORTLAND STREET
CHICAGO 47, ILLINOIS

MARK IT RIGHT TO REACH THE FIGHT

Stencil-Marking is the required type of marking for all war shipments. Marsh-Stenciling will save you up to \$600 annually in shipping room costs. To use, just cut a stencil, stroke with a Marsh Stencil Brush and your shipments are legibly, permanently addressed, and assured of prompt delivery. Write for free booklet, prices.

MARSH STENCIL
MACHINE COMPANY
22 MARSH BUILDING
BELLEVILLE, ILL., U.S.A.



PROMPT DELIVERY
IN THREE SIZES TO
MEET GOVT SPEC:
1", 3/4", 1/2".

MARSH



STOP TIME-LOSSES IN MATERIALS HANDLING

WELD-BILT MATERIALS HANDLING EQUIPMENT in standard types or custom-engineered to your special needs—can add valuable hours to your loading, unloading, and handling operations . . . hours now lost in slower handling methods.

Weld-Bilt Portable Electric Elevators, telescopic or hinged types, for instance, make short work of high-stacked bundles in cars or storage. Easy to handle, fast, safe, they are available in an unlimited variety of types and capacities for all needs. Write for catalog No. 504-A.

Standard "Weld-Bilt" Hinged Electric Portable Elevator.

Weld-Bilt

WEST BEND EQUIPMENT CORP.

231 WATER STREET

WEST BEND, WISCONSIN

Materials Handling Engineers • Hydraulic Lift Trucks, Two-and-Four Wheel Trucks, Tiering Machines, Skid Platforms, Barrel Trucks and Racks, Portable Elevators and Special Equipment.

HEBARD SHOP MULES

Designed for dependability as the result of 25 years of experience! Sturdy as an Ox. Maneuverable as a Swan. Again and again, Hebard Shop Mules are the answer to materials handling problems.

★ INTERNATIONAL ★ HARVESTER POWERED

A3 Victory Model Midget Shop Mule pictured, starts in and around work places with amazing agility. Short 66" turning radius. Width, 40" O.A. Height over steering wheel 54". Descriptive Bulletins, information and

PARTS AND
SERVICE
AVAILABLE FROM
INC
INDUSTRIAL DEALERS
EVERWHERE



A3 MIDGET
VICTORY MODEL

W. F. HEBARD & CO.

2433 S. STATE ST. 16, CHICAGO, ILL.

Handle DRUMS or BARRELS?

SAVE TIME, LABOR with a **SABIN** One-Man TRUCK

NO MANUAL
LIFTING
NO WEIGHT
TO CARRY



Price \$3350

WRITE FOR FREE BULLETIN

SHIPPED ON APPROVAL

Send Trial Order

THE SABIN MACHINE CO.
6540 Carnegie Ave., Cleveland, O.

This amazing truck makes it easy for one man, without helpers, to handle barrels or drums up to 800 pounds. EXCLUSIVE THIRD-WHEEL FEATURE provides foot pedal for easy break-over, gives better load support and balance—and permits loaded truck to stand alone.

STENCIL MACHINES

Marsh Stencil Machine Company 59

STRADDLE TRUCKS

Hyster Company 18

TRACTORS, INDUSTRIAL (3 or 4 Wheel)

Baker-Raulang Company	1
Case Company, J. I.	10
Hebard & Company, W. F.	60
International Harvester Company	53

TRAILERS, INDUSTRIAL

Hebard & Company, W. F.	60
Nutting Truck & Caster Company	61
Thomas Truck & Caster Company	61

TRAILERS (Motor Truck)

Fruehauf Trailer Company	12
Herman Body Company	5
Highway Trailer Company	17

Front-Mounted Winch

Gar Wood Industries, Inc., states that it has shipped more than 150,000 front-mounted winches, which have been developed by the company and the U. S. Army, to the armed forces.

Mounted in front of the truck radiator, instead of high on the chassis back of the cab as has been custom, the front-mounted winch, enables a vehicle "to pull itself out of almost any predicament by its own power."

Don't assume you can't get equipment—Inquire.

SALSBURY

turret truck

Rolls up a 15% Ramp With a TON Load

The Salsbury Turret Truck will pull 4,000 lbs. up a 10% grade; 8,000 lbs. up a 5% grade; up to 12,000 lb. trailer load on smooth, level surface. The Salsbury automatic clutch and transmission give you unequalled maneuverability on ramps.



This is the LIFT TYPE. Above is shown CARGO TYPE. Also made in TRACTOR TYPE.



Gear ratio changes automatically as required by load and speed—no gears to shift. Just feed the gas and it goes! Low in price—economical—made in 3 types. Send for literature.

Manufactured and distributed under license of Salsbury Corp., Los Angeles, Cal., by

NUTTING TRUCK & CASTER CO.

Makers of a complete line of Nutting Floor Trucks, Wheels and Casters

1421 DIVISION STREET
FARIBAULT, MINNESOTA



FLOOR TRUCK LEADERSHIP SINCE 1891

TRUCKS, ELEVATING PLATFORM (Powered)

Baker-Raulang Company	1
Hyster Company	18

TRUCKS, LIFT (Hand)

Revolator Company	58
-------------------	----

TRUCKS, PLATFORM (Hand)

Glove Company	39
Mercer-Robinson Company Inc.	57
Nutting Truck & Caster Company	61
Orangeville Manufacturing Co.	53
Thomas Truck & Caster Company	61
West Bend Equipment Corp.	60

TRUCKS, PLATFORM (Powered)

Baker-Raulang Company	1
-----------------------	---

TRUCKS, SPECIAL (Hand)

Globe Company	39
Nutting Truck & Caster Company	61
Sabin Machine Company	60

TRUCKS, STEVEDORE

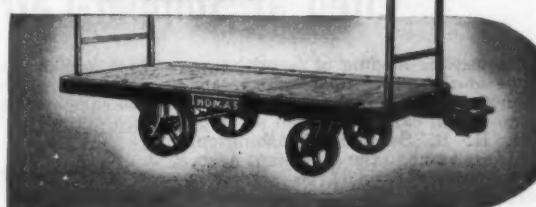
Nutting Truck & Caster Company	61
Orangeville Manufacturing Company	53
Thomas Truck & Caster Company	61
West Bend Equipment Corp.	60

WHEELS (Industrial Truck)

Darnell Corporation Limited	55
Nutting Truck & Caster Company	61
Thomas Truck & Caster Company	61

When writing advertisers please mention D and W

THOMAS TRUCK of Keokuk



THOMAS MAKES



4 WHEEL TRUCKS



2 WHEEL TRUCKS



CASTERS



RUBBER WHEELS

- Capacity: 4000-5000 lbs.
- Deck: Seasoned 1" hardwood
- Deck bolted inside steel frame
- Coupling: Fast safe, automatic, or manual
- Wheels: Spoke type, tread, smooth steel or molded-on rubber
- Bearings: Hyatt, with hardened outer races
- One piece welded steel frame

The "GENERAL" Industrial trailer is doing a thousand heavy duty jobs all over the world . . . in freight stations, marine terminals, warehouses, industrial plants . . . wherever a staunch, easy running caster type trailer of time-proved design is needed. Available with standard racks shown, or any one of the 1000 Thomas superstructures. Write for catalog.

THOMAS TRUCK & CASTER CO. 
427 MISSISSIPPI RIVER, KEOKUK, IOWA

ALABAMA—ARIZONA**PUBLIC WAREHOUSE SECTION****BIRMINGHAM, ALA.**

1880—Sixty-four Years of Service—1944

HARRIS TRANSFER & WAREHOUSE CO.

8 South 13th St., Birmingham 1

— FIREPROOF WAREHOUSES —

Merchandise and Household Goods

• STORAGE • CARTAGE • DISTRIBUTION • FORWARDING

Pool Cars Handled

Member of A.G.W.—A.W.A.—N.F.W.A. Agents for Allied Van Lines, Inc.

BIRMINGHAM, ALA.**STRICKLAND TRANSFER & WAREHOUSE CO.**

1700-1702 2nd Ave. So., Birmingham 3



General Merchandise Storage and Distribution

Pool Car Service a Specialty—Motor Truck Service

Centrally Located—Free Switching from All R.R.s.

BIRMINGHAM, ALA.**WITTICHEN****BONDED**Transfer & Warehouse Co.
831 North 19th St., Birmingham 2

Fireproof Warehouse

Household Goods and Merchandise

Pool Car Distribution

Member: A.W.A. & M.W.A.

**DOOTHAN, ALA.****SECURITY BONDED WAREHOUSE**

500-501 East Commerce St.

POOL CAR DISTRIBUTION**SERVING**
S.E. Alabama
S.W. Georgia
N.W. FloridaReceiving—STORAGE—Handling.
Motor Freight Service to all points.
6-car Private Siding. Reciprocal Switching.
Efficient—Conscientious Branch House Service.

Importance of Heavier Car Loading Cited at Shipper-Carrier Meeting

The heavier loading of freight cars is one of the most important current developments in the field of transportation to rail carriers as well as shippers, H. R. Stringer, Washington, D. C., assistant to the chairman, Assn. of American Railroads, declared in a recent talk before shipper-carrier representatives in the Pacific Gas & Electric Co.'s auditorium in San Francisco.

Mr. Stringer presented figures disclosing that in total carload shipments in 1943 (85,657,000 tons), the average weight per car was 41 tons, as compared with 38 tons in 1941, 36 in 1939, and 35, for instance, in 1929.

He pointed out that there has been a continued increase in the average lading per car during the past 5 years. The resultant substantial saving in transportation, he asserted, is largely because of the continued cooperation accorded rail carriers by shippers and receivers in all parts of the country and to the effective enforcement of ODT Order 18A.

The AAR official declared that if the 1943 average tonnage per car had prevailed in 1944, 809,000 more carloads would have been required to handle the tonnage, or nearly 2600 cars for every working day of the year. On the basis of the average turn-around

time which obtained in 1943, Mr. Stringer declared, this represents 32,400 cars made available for other service. (Herr.)

Warehouse Conventions

THE American Warehousemen's Assn. will hold its 54th annual convention Feb. 16 to 18, 1945, at the Edgewater Beach Hotel, Chicago. Customary sessions of the merchandise and cold storage divisions will be held separately after the opening general session, Wilson V. Little, general secretary, states.

The 25th annual convention of the National Furniture Warehousemen's Assn. will be held from Feb. 19 to 24 inclusive at the Edgewater Beach Hotel, Chicago, according to E. D. Byrnes, executive secretary of the association.

The 14th annual convention of the Mayflower Warehousemen's Assn. will be held at the Statler Hotel, Detroit, Mich., from Feb. 21 to 24 inclusive, E. H. Lamkin, executive secretary has announced. The Detroit Storage Co., headed by A. A. Leonard, former association president, will be host to the convention.

**Boxing and Crating
Tested Scientifically**

Packing and shipping of postwar industrial products will become almost an exact science through "box-and-crater engineering," it has been predicted by the Wirebound Box Mfrs. Assn., Chicago, Ill.

Based on the experience of member firms in providing boxes for millions of tons of war materiel, this prediction has the backing of successful tests under severe wartime conditions.

A full report on tests of various types of containers for overseas shipment of meats is carried in the paperbound book, of 61 pages and containing several illustrations, entitled "Rough Handling Tests on Boxes—Wood, Nailed and Wood, Wirebound—With Different Kinds of Interior Packing for Export Shipment of Canned Luncheon Meat," put out by the American Meat Institute, Chicago, Package Research Laboratory.

"Box-and-crater engineering" includes planning for shipping before an industrial product leaves the drawing boards.

Olympia Packing Plant

The Midfield Packers, of which H. H. Huber is president, recently established a packing plant at Olympia, Wash., undertaking dehydrating and packing of fruits and produce.

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

ARKANSAS—CALIFORNIA

LITTLE ROCK, ARK.



COMMERCIAL WAREHOUSE CO.

801-7 East Markham Street

A Complete Branch House Service -- Fireproof Sprinklered -- Low Insurance -- Private Railroad Siding -- Quick Service.

Represented by
ALLIED DISTRIBUTION INC
1111 WEST 42ND ST. NEW YORK 6-0000
CHICAGO 1023 NEWBERRY AVE. MURKIN

LITTLE ROCK, ARK.

Arkansas' Largest Warehouse
Merchandise—Household Storage



TERMINAL WAREHOUSE CO.
LITTLE ROCK, ARKANSAS

Member American Warehouses' Association
American Chain of Warehouses
Agent for Allied Van Lines, Inc.

Absolutely
Fireproof
Low
Insurance
Rates
Pool Car
Distribution
Compartments
for household
Goods

LOS ANGELES, CAL.

OPERATING WAREHOUSES
IN PRINCIPAL CALIFORNIA CITIES

BEKINS
VAN & STORAGE CO.

1335 S. FIGUEROA ST.
Lucky Waller, Manager

LOS ANGELES, CAL.

CALIFORNIA
1248 WHOLESALE ST.
Merchandise Exclusively

**STORAGE
DISTRIBUTION
TRANSPORTATION**

WAREHOUSE
LOS ANGELES 21
Sprinklered—A.D.T.

LOS ANGELES, CAL.

PROMPT REMITTANCES

CROWN TRANSFER & STORAGE CO.

1201 E. 5th St.
Los Angeles

SHIPPING TO AND FROM ALL EASTERN CITIES
POOL CAR DISTRIBUTION—L.C.L. SHIPMENTS
We specialize in transferring household goods for company personnel.
R. T. CHRISTMAS THREE DECADES OF SERVICE

LOS ANGELES, CAL.

AN "ASSOCIATED WAREHOUSE"

DAVIES WAREHOUSE COMPANY

GENERAL OFFICES: 164 SOUTH CENTRAL AVE., LOS ANGELES 13
First merchandise warehouse in Los Angeles—and STILL the
FIRST . . . Established 1893 . . . MORE THAN ORDINARY
SERVICE . . . We invite inquiries relative to your ware-
house problems.

MEMBERS: A.W.A. SINCE 1898 . . . C.W.A. . . . L.A.W.A.

Completely Equipped

Merchandise
LOS ANGELES WAREHOUSE CO.
316 Commercial Street
Household Goods

LOS ANGELES

Member
AWA-CF&SA

Serving all of California

LYON
VAN & STORAGE CO.

1950 SOUTH VERNON AVE. • LOS ANGELES 7

LOS ANGELES 21, CAL.

METROPOLITAN WAREHOUSE COMPANY

Established 1924

W. H. Tyler
General Manager

Incorporated

1340-56 E. Sixth St.
(Tel. Trinity 9861)

FACILITIES—270,000 sq. ft.: Fireproof, reinforced concrete const.; Sprinkler sys.; A. D. T. alarm service. Ins. rate, 11.7. Siding on A. T. & S. F. Ry.; capacity, 18 cars; free switching. Ample Motor Truck Platforms—Sheltered.

SERVICE FEATURES—Pool car distributors. Motor transport service available. Space for lease: Storage; Offices; Cooler Rooms.

ASSOCIATIONS—Calif. W. A.: Los Angeles W. A.

LOS ANGELES, CAL.

Overland Terminal Warehouse

1807 East Olympic Blvd.

Los Angeles 21

General Merchandise Storage

Sprinklered—A.D.T.

U. S. Customs Bonded Warehouse No. 11
Cool Room Accommodations

For Complete Information Write Us Direct
or Handle with Our Associates

CROOKS TERMINAL WAREHOUSE, INC.

CHICAGO 7 NEW YORK 16 KANSAS CITY 7
435 W. Harrison St. 271 Madison Ave. 1104 Union Ave.

Or Nearest General Agency Union Pacific Railroad

LOS ANGELES, CAL.

Estab. 1918

PACIFIC COMMERCIAL WAREHOUSE



INCORPORATED
MERCHANDISE STORAGE
AND DISTRIBUTION

825 EAST THIRD STREET
Los Angeles, California

ZONE 18

Now offering space for storage and distribution of civilian commodities. Advise your specific requirements and we will be glad to outline our complete services, rates, etc.

★ Certificated public utility ★

LOS ANGELES, CAL.

1817-1835 INDUSTRIAL ST., LOS ANGELES 21

Star Truck & Warehouse Co.

COMPLETE FACILITIES EFFICIENT SERVICE

SPRINKLERED—A.D.T.

Storage Distribution Drayage

Represented by Distribution Service

340,000 Square Feet 117 Places Motor Equipment

New York Chicago San Francisco

Fire Loss Liability

Modern higher courts consistently hold that a warehouseman is not liable for fire losses unless the testimony proves that the fire resulted from the warehouseman's negligence. Furthermore, the laws of the state in which the goods are stored control the legal relationship of the warehouseman with owners of stored goods. And the fact that a warehouseman fails to issue a warehouse receipt will not result in his liability for fire losses.

For example, in Ayres Textile Co. v. Crowley, 30 S. E. (2d) 785, S. C., it was shown that the owner of waste stored it in a warehouse which burned and destroyed the waste. The owner of the waste sued the warehouseman and offered to prove that there is a custom in the waste trade whereby when waste is stored in a warehouse, the warehouseman either insures it or notifies the customer that he does not have it insured. Also, the customer contended that the warehouseman was liable because he failed to issue a warehouse receipt. The customer failed to prove that the fire resulted from negligence of the warehouseman or his employees.

The lower court excluded all testimony relating to such custom and usage. The higher court approved the verdict and, in holding the warehouseman not liable, said:

"When parties enter into a contract, all the laws of the State that may relate to the subject matter of the contract are part of that contract. . . . Appellant (customer) was bound by knowledge

LEGAL NEWS

By LEO T. PARKER
Legal Editor

that he had made no written request for insurance, and there is no evidence of any contract on the part of respondents (warehouseman) to provide insurance, and therefore their failure to issue a receipt could not be deemed to be a proximate cause of concurring cause of appellant's alleged loss."

Insurance Policy Void

Ordinarily an insurance policy is automatically void and without effect (1) if the insured secured the policy through fraudulent or deceitful statements made in the application; or, (2) if the loss resulted from gross negligence or wilful acts of the insured; or, (3) if the testimony proves that the insured violated the terms of the policy.

For illustration, in Niagara Fire Insurance Co. v. Lowell Trucking Corp., 56 N. E. (2d) 28, Mass., it was shown that a trucking corporation held an insurance policy which insured against loss by theft of merchandise in transportation. The policy contained a clause:

"In consideration of the rate at which this insurance is written it is warranted by the assured trucking company that the trucks . . . used in long distance trucking . . . are equipped with the Babaco Alarm System. . . . It is further warranted by the Assured that such 'Babaco' equipment protecting the cargo compartment shall be in the 'on' position except with respect to any truck . . . which is actually being loaded and unloaded. . . ."

One night a truck driver refrained from setting the alarm on the cargo compartment, so that a delivery could be made at a certain stop. The driver was unable, however, to deliver any goods there, and proceeded to a point where he stopped his truck and was examining shipping papers when he was held up by robbers and forced at gun point to let them into the cab and take control of the truck. They drove the truck away, stole the cargo, thrust the driver into the cargo compartment of the truck, and abandoned it. The insurance company paid shipper the value of the stolen cargo and then sued the trucking company to recover the amount thus paid on the ground that the trucking company had violated the above clause in the policy.

It is interesting to observe that the higher court held that the trucking corporation must repay to the insurance company the amount it paid out to the owner of the destroyed goods.

On the other hand, readers should know that an insurance policy still remains in full force and the insurance company remains fully liable although a holder of the policy vi-

LOS ANGELES, CAL.

UNION TERMINAL WAREHOUSE

General offices, 737 Terminal St., Los Angeles 21

W. E. TEAGUE, Pres.

B. F. JOHNSTON, Gen. Mgr.

Free and U. S. Customs bonded storage. The largest, most complete and efficient Warehouse and Distribution Service in the West. Insurance Rate as low as 11.8 cents per \$100 per year. Daily motor truck service to all parts of the city and Los Angeles Harbor.

LOS ANGELES, CAL.

WESTLAND WAREHOUSES, INC.

Established 1923

G. G. Franklin
General Manager

4814 Loma Vista Ave.
Tel. Lafayette 1101

FACILITIES—352,355 sq. ft. Fireproof, rain, conc. Sprinkler Sys. Watchmen. Ins. 1¢ per cu. ft. Siding: L.A.Junc.Ry., 48 cars. Free switch.: A.T.&S.F., S.P., U.P. and P.E. Ample Motor Truck platforms.

SPECIAL SERVICES—Pool cars. Daily mot. transp. to So. Calif. points. Free pickup.

ASSNS.—A.W.A., C.W.A., L.A.W.A., M.T.A.S.C.

OAKLAND, CAL.

SINCE 1900



GENERAL MERCHANTISE

Warehousing—Distributing—Draying

HOWARD TERMINAL

95 Market Street, Oakland 4
Warehouses Steamer Piers

SACRAMENTO, CAL.



LAWRENCE

Warehouse & Distributing Co.

STORAGE

MERCHANDISE — HOUSEHOLD GOODS
POOL CAR DISTRIBUTING — DRAYAGE
Your Detail Handled as You Want It
20th & JAY STS., P.O. BX. 1194 SACRAMENTO 6

SACRAMENTO, CAL.

ARTHUR E. TRAVIS, Owner

WESTERN VAN & STORAGE CO., Inc.

1808-22nd St.

Sacramento, 6, Cal.

Merchandise and Household Goods Warehouse

Specializing in General Merchandise, Hops and Flour, Private Siding on S.P.R.R.—10-Car Capacity, Distribution of Merchandise and Household Goods Pool Cars.

SAN FRANCISCO, CALIF.

"Where the West begins and
Distribution starts."



GIBRALTAR WAREHOUSES

201 California St., San Francisco 11

OPERATED IN CONJUNCTION WITH

OVERLAND FREIGHT TRANSFER CO.

AND

TILDEN SALES BUILDING

SAN FRANCISCO, CAL.

HASLETT WAREHOUSE COMPANY

240 Battery Street, San Francisco 11

Largest and most complete storage and trucking service on the Pacific Coast
Operating in San Francisco, Oakland, Stockton and Sacramento

S. M. HASLETT • President

Member: American Warehousemen's Assn.
American Chain of Warehouses, Inc.

SAN FRANCISCO, CAL.

MARKET STREET VAN & STORAGE

THE GRIFFIN, Pres. JIM CUMMINS, Sec.-Treas.

1875 Mission St., San Francisco 3

Efficient and Prompt Service

Operating 3 Warehouses; total space 30,000 sq. ft. Low Insurance Rates; Accessible to all Railroads; Sprinkler System, Vault Storage, Pool Cars Distributed. Members NFWA, Agent Allied Van Lines, Inc.



SAN FRANCISCO, CAL.

Member:
American Warehouses' Association
Distribution Service, Inc.


General Merchandise
United States Customs and
Internal Revenue Bonded Storage.
Drayage and Pool Car Distribution.
Office Accommodations and Telephone Service.

SAN FRANCISCO WAREHOUSE COMPANY
635 Third Street, San Francisco 7

Sutter 2461

STOCKTON, CAL.

CHAS. C. WAGNER, Pres.

PACIFIC STORAGE CO.

517 N. Hunter St. Stockton, Cal.
Merchandise—Household Goods—
Drayage

Ship thru the PORT OF STOCKTON for economical
distribution in Central California.
Intercoastal Terminal Rates apply at Stockton.



lates a clause in the policy, provided the insurance company officials or authorized representatives had knowledge that the holder of the policy customarily violated the clause.

Application Denied

Modern higher courts consistently hold that a private carrier's operations cannot be enlarged if common carriers are willing and able to provide satisfactory service.

For illustration, in *Fischbach v. Public Utilities Commission*, 58 N. E. (2d) 162, O., it was shown that the Public Utilities Commission denied an application of a contract motor carrier for leave to amend its private contract permit by adding another shipper. The Public Service Commission held that the available service of common carriers would sufficiently meet the shipper's requirements. The private carrier appealed to the higher court which upheld the decision rendered by the Public Service Commission, and said: "They (common carriers) asserted ability, readiness and willingness to supply the needs of this shipper."

Interstate Employees Exempt

According to leading higher court decisions all persons and employees are exempt from the Fair Labor Standards Act who devote a substantial part of their time to activities which directly affect safety of operations involving transportation of merchandise in interstate commerce.

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

DENVER, COLO.

BONDED

THE BANKERS WAREHOUSE COMPANY

TELEPHONE MAIN 5339 • 2145 BLAKES STREET • DENVER, COLORADO

MERCHANDISE STORAGE — POOL CAR DISTRIBUTION
A.D.T. Protection—Private siding C. R. & G.—U.P. Also operates
Warehouse at Brighton, Colo.
Represented By
Associated Warehouses, Inc.—Chicago & New York City



DENVER, COLO.

SPACE AND OFFICES NOW AVAILABLE

Sprinklered throughout, Free Switching
Pool and stop over cars stored or distributed
Centrally located

KENNICOTT WAREHOUSES INC.

1700-16 Street

Denver 17, Colo.

DENVER, COLO.

WEICKER Complete Service



★ Mdse. & Hhg. Goods Storage
★ Pool Car Distribution
★ Moving, Packing, Forwarding

We Operate the Weicker Transportation Co., a statewide, daily motor freight service under regulation of the Public Utilities Com. Connection with Interstate Truck Lines to Principal Cities.

BURGLAR PROOF SILVER VAULTS, CEDAR LINED RUG VAULT, FUMIGATING VAULT, PRIVATE LOCKERS

THE WEICKER TRANSFER & STORAGE CO.

1700 Fifteenth, Denver 17, Colo.

Member of N.F.W.A.—A.C.W.—A.W.A.

For instance, in *Levinson v. Spector Motor Service*, 56 N. E. (2d) 142, Ill., it was shown that a "checker," who was employed by a motor carrier to supervise and direct unloading and disposition of incoming freight and the collecting and loading of outgoing freight, sued his employer to recover back and overtime wages under the Fair Labor Standards Act. In refusing to hold in favor of the checker, the higher court said:

"Testimony pertinent to the issue on the merits is that the checker supervised and directed the unloading and disposition of incoming freight and the collecting and loading of the outgoing freight and that he watched the disposition of the weight of the freight in loading. . . . We believe that his (employee's) duties—not the name given his position—are determinative."

Other higher courts have held that loaders of interstate merchandise are exempted from Section 7 of the Fair Labor Standards Act. Also, truck drivers who haul freight in interstate commerce are exempt. See *McKeown v. Southern California Freight Forwarders*, 49 F. Supp. 543; *Oversight Motor Transportation Co. v. Missel*, 316 U. S. 572, and *Magann v. Long's Transfer Co.*, D.C. 39 F. Supp. 742.

Sued for Injury

Modern higher courts hold that a common carrier is not liable for negligence of an independent contractor with respect to injuries to private persons or property.

For illustration, in *Albers v. Great*

Central Transport Corp.

Central Transport Corp., 14 Ohio Supp. 25, O., it was shown that the Great Central Transport Corp. issued its bill of lading for the transportation of goods from Detroit, Mich., to Knoxville, Tenn. The goods were transported from its terminal in Detroit to its terminal in Cincinnati. For the purpose of transporting the goods from the Cincinnati terminal to another terminal of the carrier operating between Cincinnati and Knoxville, the Great Central Transport Corp. engaged the services of a common carrier operator named Dallas. While Dallas was backing his truck to the loading platform of the carrier, operating between Cincinnati and Knoxville, an employee of the carrier operating between Cincinnati and Knoxville was killed. The dependents of the employee sued the Great Central Transport Corp. to recover damages alleging that it was responsible for negligence of Dallas. However, the higher court refused to hold in favor of the dependents and explained that a common carrier is not liable for injuries negligently caused by another common carrier which it hired to transport merchandise.

On the other hand, see *Globe Co. v. Shmitt*, 53 N. E. (2d) 790, where the higher court held that while a common carrier or other employer is not ordinarily liable for negligence of an independent contractor, yet where the work is inherently dangerous, unless certain precautions are taken, such employer is liable if injury results to another by reason of the failure of the contractor to take such precautions.

COLORADO—CONNECTICUT—DISTRICT OF COLUMBIA

Why Should We Keep
it DARK



IN THE DENVER AREA
WE SERVE
YOU BEST!



Modern, Fireproof Warehouse
Offices and Special Services.

17-Car Sidings. Free Switching.
Financial Responsibility.

Write, wire or telephone.

EST. 1902

NORTH DENVER
Transfer & Storage Co.

Office 2016 BLAKE ST. . . . DENVER, COLORADO

Represented by
NEW YORK ALLIED DISTRIBUTION INC.
11 WEST 42ND ST., PENN. 6-2348

CHICAGO
1525 NEWBERRY AVE., MONSANTO

PUEBLO, COLO.



BURCH WAREHOUSE AND
TRANSFER CO. INC.

General Office and Warehouse
204 SO. SANTA FE AVENUE
Modern Sprinklered Fireproof Building
Freight Forwarding and Distribution
Household and Merchandise Stores
PACKING AND SHIPPING
Member of May. W.A.—A.W.A.—Colo. W.A.

PUEBLO, COLO.

128-130 SOUTH MAIN

WEICKER TRANSFER &
STORAGE CO.

- Modern Sprinklered Building
- Household and Merchandise Facilities
- Pool Car Distribution
- Freight Forwarding and Distribution

*AGENT ALLIED VAN LINES—



BRIDGEPORT, CONN.



The Bridgeport Storage Warehouse Co.
General Offices 10 Whiting St.

Bridgeport 1
General Merchandise Storage and Distribution
Total Storage Area 67,000 Sq. Ft.
Household Goods, Moving, Packing and Shipping
N. Y., N. H. and H. R.R. Siding



BRIDGEPORT, CONN.

E. G. Mooney, Pres. A. G. Hyland, V. Pres.

HARTFORD DESPATCH H
and WAREHOUSE CO. Inc H

1337 SEAVIEW AVENUE, BRIDGEPORT, CONN.
U. S. Bonded Warehouses
Merchandise facilities
(and Massachusetts daily)
Warehouses at Hartford, Conn., and Springfield, Mass.

Members: NFWA—AWA—ACW—AVL Agents

HARTFORD, CONN.

E. G. Mooney, Pres. A. G. Hyland, V. Pres.

HARTFORD DESPATCH H
and WAREHOUSE CO. Inc H

131 CAPITOL AVENUE, HARTFORD, CONN.
U. S. Bonded Warehouses
Merchandise facilities
(and Massachusetts daily)
Warehouses at Bridgeport, Conn., and Springfield, Mass.

Members: NFWA—AWA—ACW—AVL Agents

HARTFORD, CONN.

Member by Invitation

NATIONWIDE
DESPATCH & STORAGE CO.

9 Center St., Hartford 5, Conn.
15,000 sq. ft. of Storage Space—Consign shipments
via N.Y.-N.H.-R.R.R.
Members: Independent Movers and Warehousemen's Assn., Conn. Motor Truck Assn., Hartford Better Business Bureau.



HARTFORD, CONN.

Established 1902



SILLENE
Warehouse Co., Inc.
HOUSEHOLD GOODS EXCLUSIVELY
Fireproof Warehouses

N.W.A. C.W.A. C.M.T.A. C.of.C.

NEW HAVEN, CONN.

M. E. KIELY, Pres.

DAVIS STORAGE COMPANY

335 East St., New Haven 2, Conn.
Modern Fireproof Merchandise Warehouse
Private seven-car Siding, adjacent to Steamship and
R. R. Terminals. Pool and stop over cars distributed.
Merchandise Storage.
Motor Truck Service to all towns in Connecticut.
Low Insurance Rate. Prompt, Efficient Service.
Member of Connecticut Warehousemen's Assn.

Common Carrier Negligent

In Villari v. James, 38 Atl. (2d) 379, Pa., the owner of merchandise destroyed while in transit sued the common carrier for \$1,057 damages. The counsel for the carrier argued that since there was a special contract between the shipper and the carrier and the shipper had assisted in loading the merchandise the carrier should be relieved from liability. However, the higher court held the carrier liable, saying:

"A common carrier by contract may limit his liability in some respects but he may not thereby relieve himself from the consequences of his own negligence."

Consignor Held Liable

In Klan, 18 So. (2d) 50, La., the higher court held that a consignor assumes risk of damage or loss to merchandise shipped f. o. b. the consignor's location. Also, delivery of goods by a consignor under f. a. s., which means free aside ship, relieves the consignor of liability after the goods have been delivered in good order to the dock where the ship is to sail. In such instances, if the goods are lost, injured or spoiled while on the docks of the steamship company or in transit before they reach the consignee, the shipper is not responsible. But failure of the seller to follow instructions of the consignee as to when or how to make the shipment automatically results in the consignor being responsible if the merchandise is lost, damaged or in-

jured before delivered to the consignee.

Purchaser Liable

In Cotton v. John Deere Plow Co., 18 So. (2d) 727, Ala., the higher court held that although a purchaser of merchandise cannot be compelled to pay the seller where the testimony proves that the latter breached his guarantee, yet this rule of law is not always applicable when a person holds a negotiable note purchased from the seller to whom the purchaser gave the note as payment for the merchandise.

In other words, modern higher courts consistently hold that the law writes into a negotiable note the maker's unconditional promise to pay the note to any indorsee in good faith for value before maturity whatever may happen as between original parties to the transaction.

Control Necessary

Modern higher courts hold that a person who hires a truck and its driver is not liable nor responsible for negligence of the driver if he retains no control over the driver.

For illustration, in Blakey v. Capania, 36 Atl. (2d) 789, Pa., a truck owner furnished a truck and driver for hauling materials but retained all power to direct his driver as to the operation of the truck.

The higher court refused to hold the hirer liable in damages for an injury caused by the driver.

Patron Injured

In Cestari v. Pennsylvania, 139 Fed. Rep. (2d) 566, a patron fell on a wet and slippery terrazzo floor. He proved that previous to the accident it had been raining and that there was a great deal of rain water on the floor. The lower court held the company not liable, but the higher court reversed the verdict and explained that when the combination of a smooth terrazzo floor with water produces a slippery and dangerous condition it is the company's duty to remedy the dangerous condition.

Also, see Flora v. Great Co., 330 Pa. 166, which involved a fall on a wet linoleum floor. There was testimony that the linoleum became slippery when wet. The court said:

"If a combination of a smooth linoleum with water or snow produced a slippery condition at a place where invitees (patrons) had occasion to walk it was defendant's (company's) duty to correct that condition."

Contract Void

A contract made in violation to orders and regulations of the Interstate Commerce Commission is void.

For example, in Chicago, R. I. & P. Ry. Co. v. Black, Sivals and Bryson, Inc., 147 Pac. (2d) 455, Okla., it was shown that 49 U.S.C.A. No. 16, paragraph 8(f), stipulates the time limit in which a shipper may file a suit against a carrier for enforcement of an order of the Interstate Commerce Commission for payment of money.

NEW HAVEN, CONN.

23 A.D.T. Supervised Buildings
For Storage of Merchandise,
Automobiles and Furniture
Low insurance rates. 15 car siding. Bonded with U. S. Customs
DAILY TRUCK DELIVERY SERVICE
to Connecticut and southern Massachusetts

The SMEDLEY Co. Est. 1860
165 Brewery St., New Haven 11, Conn.

Member NATIONAL FURNITURE WAREHOUSEMEN'S ASSN.
Agent ALLIED VAN LINES, INC.



NEW HAVEN, CONN.

PAUL A. DAHLGARD, Owner

West Haven Trucking Company
Storage Warehouses
Offices, 435 Congress Ave., New Haven 11
Moving and Storage of Household Goods Exclusively
Member Connecticut Warehousemen's Association



TORRINGTON, CONN.

Established 1860
The E. J. Kelley Co. Storage Warehouses
Main Office, Torrington, Conn.—Telephone 9243
One of New England's Largest Transportation Companies
Household Goods Packed, Stored, Shipped.
Merchandise Storage and Distribution.
Pool Cars Distributed in All Parts of Connecticut.
Branch Offices in Bridgeport, Hartford, New Haven & Waterbury, Conn.; Springfield & Worcester, Mass.



WASHINGTON, D. C.

John C. BITTENBENDER, Pres., Treas. & Mgr.

WE RECIPROCALE
AMERICAN STORAGE CO.
2801 Georgia Ave., N.W., Washington 1
MODERN FIREPROOF WAREHOUSE
SPECIALIZING IN HANDLING OF HOUSEHOLD GOODS
Member of United Van Lines

WASHINGTON, D. C.

Telephone ADams 5600



FEDERAL STORAGE
COMPANY
1781 FLORIDA AVENUE, WASHINGTON 8, D.C.
E. K. MORRIS, President
(See Page Advertisement Directory Issue)
Member NFWA, AVL, CanWA.

WASHINGTON, D. C.

THE JACOBS TRANSFER COMPANY, INC.

Est. 1857

61 Pierce Street, N. E.

Washington 2, D. C.

Phone: { Decatur 7603
District 2412

SERVICES in Washington and its Commercial Zone:

1. POOL CAR DISTRIBUTION

On B. and O. R.R. Siding
Fast—Economical—Dependable

2. LOCAL CARTAGE

DISTRICT OF COLUMBIA

WASHINGTON, D. C.

IN WASHINGTON.

There's always

ROOM AT SMITH'S
18 WAREHOUSES

"Smith's looked ahead. They foresaw the storage needs of Washington's War-time population. They added one warehouse after another and today Smith's have eighteen large storage warehouses."

**DON'T MAKE A MOVE . . .
WITHOUT SHIPPING TO**

Exclusive Agents
Aero Mayflower
Transit Co.



Our Main Warehouse

SMITH'S



SMITH'S

TRANSFER & STORAGE CO.
1313 YU ST. N.W. NO. 3343

The higher court held that with respect to reparation awards for freight charges, above the legal rate, no contract is valid which violates the order issued by the Interstate Commerce Commission.

**Intrastate Employees
Affected by Decision**

Under a recent decision by Judge Vincent L. Leibell, in the United States District Court for New York, very large numbers of employees of trucking concerns operating entirely within one state are entitled to receive overtime pay in accordance with the provisions of the Fair Labor Standards Act. The decision was rendered against Comet Carriers, Inc., of 315 W. 36th St., New York City, in an action brought on behalf of L. Metcalfe Walling, Administrator of the Wage and Hour and Public Contracts Divisions, U. S. Department of Labor by Irving Rozen, regional attorney.

The Court held that the Fair Labor Standards Act (Federal Wage-Hour Law) covered employees of a trucking concern engaged in handling and transporting, entirely within the state, materials and cut goods for ladies' coats and suits from the plants of manufacturers and jobbers to the factories of their contractors to be made into coats and suits, and later handling and transporting the garments from the contractors back to jobbers, manufacturers and chain store warehouses.

It was conceded by both sides that

many of the coats and suits handled by employees of the defendant firm were destined for shipment to points outside the State of New York.

The Court ruled that truck drivers and helpers driving trucks across state lines at least one day a week were subject to control by the Interstate Commerce Commission and would therefore be exempt from the overtime provisions of the Act during that week under Section 13(b)(1). However, in this connection, Judge Leibell expressed the opinion that the Administrator's position that employees are not exempt under Section 13(b)(1) of the Act if they devote

more than 50 per cent of their time to work outside the jurisdiction of the Interstate Commerce Commission, "is preposterous."

Investigation of the Comet Carriers, Inc. was made by inspectors from the office of Arthur J. White, regional director, Wage and Hour and Public Contracts Divisions. Mr. White stated that the Court's opinion would "bring the benefits of the overtime provisions of the Wage and Hour Law to countless thousands of employees of intrastate motor carriers, particularly the many employees employed by New York garment center trucking firms."

LEGAL

... The Legal Editor will answer legal questions on all subjects covered by D and W. Send him your problems, care of this magazine. There will be no charge to subscribers for this service. Publication of inquiries and Mr. Parker's replies give worthwhile information to industry generally

Soldier's Goods

Question: Please advise us regarding the Soldiers' and Sailors' Civil Relief Act. Can we compel a soldier's wife to pay storage charges on goods stored in our warehouse, or must we wait until the soldier returns? We have a lot of goods in storage for two years and no charges have been paid although the soldier's wife seems to

have plenty of money. Your advice will be appreciated. Goodman Warehouse.

Answer: You cannot compel the soldier's wife to pay storage on goods owned by the soldier, unless you prove that the wife placed the goods in storage and consented to pay the storage bills. Also, you cannot sue the soldier unless in opinion of the court you have unusual rights notwithstanding.

WASHINGTON, D. C.

Maurice Krassin, Mgr.

Manhattan Storage & Transfer Co.

639 New York Ave., N.W., Washington 1, D. C.

Household Goods storage, packing, shipping. Pool Car Distribution Merchandise.

Lift vans local delivery.

Member: Ind. Movers & Warehousemen's Assoc.

WASHINGTON, D. C.

Security Storage Company

OF WASHINGTON

Capital, Surplus and Reserves over \$1,200,000
Security (steel) lift vans for overseas shipments. Door to door rates quoted. All risk insurance if desired.

Members, NFWA, AVL Canadian, British, French & Other Areas.
1140 Fifteenth Street, Washington 5

WASHINGTON, D. C.

**GENERAL MERCHANDISE
STORAGE**

Pool Car Distribution

Direct Switching Connections into Warehouse
Pennsylvania Railroad

**TERMINAL REFRIGERATING &
WAREHOUSING CORPORATION**

4th and D Streets, Southwest, Washington 4

Member of A. C. W.

DISTRICT OF COLUMBIA—FLORIDA—GEORGIA—HAWAII

WASHINGTON, D. C.

THE TERMINAL STORAGE COMPANY
OF WASHINGTON

First, K and L Streets, N. E., Washington 2
Large buildings of modern construction, total floor area 204,000 square
feet, of which 109,000 square feet is of fireproof construction.
Storage of general merchandise
CONSIGN SHIPMENTS VIA B. & O. R. R.
Heated rooms for protection against freezing.
Member of American Warehousemen's Association

W. E. EDGAR, Super.

WASHINGTON, D. C.

Established 1901

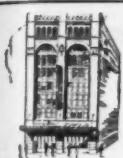
UNITED ★ STATES
STORAGE COMPANY

418 10th St., N.W., Washington 4, D. C.

We Reciprocate Shipments

(See Advertisement in Directory Issue, page 123)

Member of N.F.W.A.—W.W.A.



JACKSONVILLE, FLA.

ESTABLISHED 1901

THE SOUTH'S LARGEST FIREPROOF WAREHOUSE
EXCLUSIVELY FOR HOUSEHOLD GOODS & OFFICE EQUIPMENT

DELCHER BROS. STORAGE CO.

262 Riverside Ave., Jacksonville 1 Phone 5-0140

Local & Long Distance Moving

Rug Cleaning Cold Storage For Furs

JACKSONVILLE, FLA.

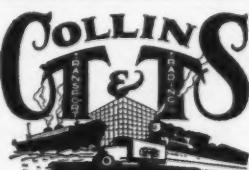
FLORIDA'S LARGEST WAREHOUSE



Union Terminal Warehouse Company

700 East Union Street, Sta. G

Merchandise Storage—Custom Bonded—Pool Car Distribution
Reconsigning—Trucking Service—Truckage 32 Cars
Reinforced Concrete—Sprinkler System—A.D.T. Service
Insurance Rate 12 Cents
Rental Compartments—Sub-Paste/Box
Members A.W.A.—A.C.W.—J.W.A.



MIAMI, FLA.

132 N. E. 11th St.

STORAGE AND POOL CAR
. . . DISTRIBUTION . . .

FIREPROOF WAREHOUSES
CAR LOADING PLANE LOADING
PRIVATE SIDINGS PACKING

MIAMI, FLA.

INTERNATIONAL BONDED WAREHOUSE CORP.

U. S. CUSTOMS BONDED

Specializing in Imported & Export Storage
Negotiable Warehouse Receipts

MERCHANDISE STORAGE

FEC RR SIDING—2 CARS

219-251 S.W. First Court (36) Tel. Miami 2-1208



TAMPA, FLA.



"Your Tampa Branch House"
CALDWELL
BONDED
WAREHOUSES
MERCHANDISE—HOUSEHOLD GOODS
Member American Warehousemen's Assn.

BUY War Bonds and keep them to help win
the war. They are post-war nest-eggs. The
more you buy the more you'll help and have.

TAMPA, FLA.

LEE
TERMINAL

P. O. Box 2309

TAMPA 1

Merchandise Storage
Pool Car Distribution
Commercial Cartage
Water and Rail connections
Low Insurance Rate
Household Goods Storage
Moving—Packing—Shipping
Agents Allied Van Lines
National Movers

Member: AWA—NFWA

TAMPA, FLA.

TAMPA COLD STORAGE & WAREHOUSE CORPORATION

COR. MARION & CASS STS., TAMPA 1

Loans on Stored Commodities. Sales Representation. Privately Bonded.
Pool Cars Handled.

Located in heart of Tampa. General merchandise—Cooler and sharp
freezer cold storage. Efficient distribution over entire state. Field
Warehousing.

380,000 Sq. Ft. of Space

TAMPA, FLA.

WILLIAM J. EVE, Manager

WAREHOUSE, INC.

BONDED

CARLOAD AND COMMERCIAL STORAGE
POOLED CAR DISTRIBUTION

107 No. 11th Street, Tampa 1, Fla.

ATLANTA, GA.

AMERICAN BONDED WAREHOUSE

Affiliated with

SOUTHEASTERN BONDED WAREHOUSES

"Better Warehouse Service"

651-653 Humphries St., S. W.—Sou. R. R.

Merchandise Warehousing Pool Car Distribution

Sprinklered A.D.T. Burglar Protection A.W.A.



ATLANTA, GA.

SAVANNAH, GA.

BENTON RAPID EXPRESS

The Fastest Freight Service Between Atlanta and
Savannah and Intermediate Points
CUSTOMS BONDED AND INSURED
Ask us to quote on all kinds of shipments received from
and delivered to Steamship Lines—Serving the
Port of Savannah

Principal Office
1 Victory Drive,
Savannah

Atlanta Office
220 Houston St., N. E.

ATLANTA, GA.

"Atlanta's Largest"

MONROE BONDED WAREHOUSES

175 SPRING ST., ATLANTA 3

Invested Capital \$325,000

Lowest Warehouse Insurance Rates in Atlanta

MERCHANDISE—COLD STORAGE—TRUCKING

Private Railroad Sidings—Concrete Warehouses

A.D.T. Service Members A.W.A.

SAVANNAH, GA.

Savannah's only bonded warehouse
SAVANNAH BONDED WAREHOUSE & TRANSFER
COMPANY,

BAY STREET EXTENSION & CANAL
Post Office Box 1187

General Storage—Distribution—Reconsigning
Custom House Brokers—Custom Bonded

Regular steamship service from principal
Eastern, Western & Gulf ports—track con-
nection with all rail and steamship lines.

R. B. Young, President
F. J. Robinson, Vice-President
Members—A.W.A.—A.C.W.



HONOLULU, HAWAII

WHEN SHIPPING GOODS TO

HONOLULU

Consign to us and the same will be given our best attention.
Modern Concrete Warehouses. Collections promptly remitted.

Correspondence Solicited

CITY TRANSFER COMPANY

Cable Address: LOVERINO, HONOLULU

IDaho—ILLINOIS**POCATELLO, IDAHO**O. B. CRAVEN, President
A. W. BROWER, Manager**CRAIG WAREHOUSES, INC.**

(formerly Jennings Cornwall Warehouses, Inc.)

240 E. Halliday Street, Pocatello, Idaho

Merchandise Storage—Distribution—Cartage
Pool Cars Distributed Free R.R. switchingMembers: American Warehouse Association, Mdse. Div.;
American Chain of Warehouses, Inc.; Idaho Motor Truck
Association.**CAIRO, ILL.****CAIRO MOUNDS WAREHOUSE AND
TRANSIT COMPANY**R. L. Hesmer, Mgr. Established 1920 J. H. Spaulding, Ass't Mgr.
Cairo Phone 1931 Mounds Phone 264
Sugar and Merchandise Transit Storage. Sugar capacity 150,000 bags.
Brick and Concrete building. Warehouse located on Illinois Central.
Served by four large railroads, Federal and Mississippi Valley Barge
Lines. Main Warehouse at Mounds, Illinois. Transit privileges same as
Cairo. No switching charges. Private Siding for 14 car spotting.**CHICAGO, ILL.****ACE WAREHOUSE CO.**

417 W. Ohio Street

Chicago 10, Ill.

The Warehouse with Personal Contact
Modern Buildings Low Insurance

standing the Soldiers' and Sailors' Civil Relief Act.

In other words, the court has the right to determine whether the suit will be postponed until the soldier returns. In almost all cases the courts have decided to stay or postpone suits of this nature until the members of the military service return and are capable of appearing in court and defending the suits. However, you may add to the accumulated or deferred storage bills 6 per cent interest which the soldier must ultimately pay.

Threat of Suit

Question: Frequently we make contracts to buy certain merchandise which is shipped from other states. Our truck driver hauls this merchandise from railway freight stations to our warehouse. Now, he threatens to sue us for back wages, overtime and lawyer fees under the Fair Labor Standards Act which states that we must pay certain wages. What are his chances of winning this suit? Hahn Warehouse Co.

Answer: He has no chance to win the suit if he hauls goods for you both intrastate and interstate. In other words, if he hauls merchandise for you from one state into another he is under the jurisdiction of the Public Service Commission which takes him from the scope of the Fair Labor Standards Act.

However, if this driver hauls goods for you exclusively in your state then, under these circumstances, he is not within scope of the Public Service

Commission but he is considered by modern courts as handling goods in interstate commerce, because he completes the hauls or delivery of merchandise to you by transporting interstate merchandise from the depot to your warehouse.

Ceiling Rentals

Question: We own an apartment building and desire to increase the ceiling rentals. Our argument is that a few years ago we rented apartments to transits at a much higher price than the present monthly rentals. At this time we can get the high transit rates. Also, how can we eject undesirable tenants? What is your opinion? International Storage, Trucking and Transport Co.

Answer: You cannot at present charge transit rates except for the apartments you had set aside for this transit trade the date the "roll-back" was made effective. The fact that you formerly rented apartments on the transit basis gives you no present rights to increase your rentals.

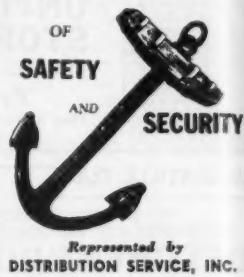
You cannot eject present tenants unless you prove they are nuisances; or have failed to pay agreed rentals; or you want the apartment for your personal use. But you cannot keep your present residence and, also, occupy an apartment. In other words, you must intend to move into the apartment from which you desire to eject a tenant. In approximately 90 per cent of the suits by landlords for ejection of tenants, the courts have

refused to hold in favor of the landlords.

Goods Sold

Question: About two years ago a woman named Kline delivered goods to our warehouse. We gave her a warehouse receipt in her name, but she did not pay the agreed rates. After duly advertising the goods and giving her proper registered notification of the intended sale we sold these goods in the usual manner. A few days ago a discharged soldier who has been in the Pacific came to our warehouse and demanded these goods. He says his wife did not own the goods but that he owned them and wants us to pay him \$980 which he says the goods were worth. We only received a few dollars less for the goods than our bill and we maintain that he should not have left the goods in his wife's care without expecting some kind of trouble. What do you advise us to do? Security Warehouse Co.

Answer: You should make a compromised agreement with him for the least amount he will accept in complete settlement of his claim. Be sure to put it in writing and have the signatures witnessed by two disinterested persons. The fact that he left the goods in his wife's care does not relieve you from liability unless you prove that the soldier gave his wife authority to act as his agent or representative. In cases of this kind it is bad policy to sell stored goods unless you know to whom the goods actually belong, because under ordinary circum-

CHICAGO, ILL.**The Distributors' News Group**Represented by
NEW YORK ALLIED DISTRIBUTION INC. CHICAGO
11 WEST 42ND ST., PENN. 6-0988 1525 NEWBERRY AVE., MON. 5531**CHICAGO, ILL.****THE TRADITIONAL INSIGNIA****ANCHOR
STORAGE CO.**
219-229 E. NORTH WATER ST.
CHICAGO 11, ILL.

Warehouses located one block east of Michigan Ave. Bridge. Walking distance from loop—Ten car switch C&NW Ry. Tunnel service—Private dock—Splendid buildings—Low insurance rates.

Represented by
DISTRIBUTION SERVICE, INC.**CHICAGO, ILL.**

Established 1894

ANDERSON BROS. STORAGE

Household Goods Storage

3141 N. Sheffield Ave., Chicago 14

Agents for
—Phones—Chicago, Wellington 0014 and Evanston, Enterprise 4002
Packing, Crating, Shipping. Facilities for Merchandise and Automobile Storage. Office Removals a Specialty.



Member AMERICAN WAREHOUSEMEN'S ASSOCIATION



DOWNTOWN WAREHOUSE

Most Centrally Located
2 Blocks from New Union Station
Canal & Harrison Sts.
CHICAGO 7, ILL.
Tunnel and Trap Car Service
Liberal Loans Made on Staples
Commodities

CROOKS TERMINAL WAREHOUSES

Incorporated

CHICAGO

NEW YORK OFFICE: 271 MADISON AVENUE (16)

KANSAS CITY

SOUTH SIDE WAREHOUSES

5801-5967 West 65th St.

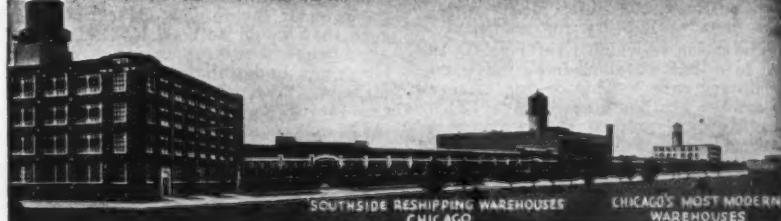
CHICAGO 38, ILL.

Capacity 1200 Carloads

Insurance Rates as Low as 12c

OPERATING SPACIOUS WATER FRONT WAREHOUSE AT 103RD STREET & CALUMET RIVER

Also operate three modern warehouses in Kansas City and the Overland Terminal Warehouse Company at Los Angeles, California



CHICAGO, ILL.

CHICAGO'S LOOP WAREHOUSE C & A TERMINAL CO.

358 W. HARRISON ST., CHICAGO 7

Modern concrete building. 30 car track served by Alton-B. & O. R.R. Tunnel connection all railroads for L.C.L. shipments. Next door Parcel Post Bldg. for economical and speedy handling of Parcel Post shipments.



CHICAGO, ILL.

CURRIER-LEE WAREHOUSES, Inc.

427-473 W. ERIE ST., CHICAGO 10

Complete Facilities for Merchandise Storage and Distribution



CHICAGO, ILL.

Established 1912

FERNSTROM
CARTAGE AND
VAN COMPANY

3547 W. MONTROSE AVE., PHONE IRVING 6-074
CHICAGO 18, ILLINOIS

Exclusive Area Agents
United Van Lines, Inc.



Fireproof Warehouse and Fleet of Padded Vans for Local and Long Distance Moving.

CHICAGO, ILL.

Grocers Terminal Warehouses

General Offices: 342 North Loomis Street, Chicago 7
Complete Merchandise Storage, Free and Bonded Space, Cooler Space, Private Sidings Located on Penn, C & NW, and CM&St. P & P R.R.'s. Free Switching. Fleet of Trucks for City Deliveries. Specialize in distributing and warehousing of Nationally Advertised Grocery and Drug Products. New York Representative: GEO. W. PERKINS—82 BEAVER ST., New York 5—TEL. WHITEHALL 4-2287



CHICAGO, ILL.

Member A. W. A.

Griswold-Walker-Bateman Co.

1525 NEWBERRY AVE.

CHICAGO 8

- Modern Buildings.
- Low contents insurance.
- Reshipping, city deliveries.
- Vacuum fumigation of food stuffs, tobacco, etc.
- Cooling Rooms

- Direct track connections with C&NW, B&O, Soo Line, PM, CGW, and B&OCT Railroads.
- Write for your copy of "The Way to Distribution."

Represented by
NEW YORK ALLIED DISTRIBUTION INC.
11 WEST 42ND ST., PENN. 6-0968

CHICAGO
1525 NEWBERRY AVE., MON.5531

CHICAGO, ILL.

Member: N.F.W.A.
Allied Van Lines

Serving Chicago & Suburbs For Over 40 Years

Consign Your Shipments To
JOYCE BROS. STG&VAN CO.
Main Office 6428 N. Clark St.
Chicago 26
Rogers Park 8033



CHICAGO, ILL.

49 Years of Reliable Service

Lincoln Storage and Moving Co., Inc.
4251-59 Drexel Blvd., Chicago 15, ILL.
Government Bonded Warehouse
Storage—Packing—Shipping
Local and Long Distance Moving



stances the true owner can sue you and recover the actual value of the goods.

Warehouse Liability

Question—As you know, several states have laws regulating the operation of warehouses. The question has arisen regarding warehousemen's responsibility in the event of loss or damage to stored goods due to their own negligence.

Have you information available covering the angle of whether or not the laws of any state may limit the usual or common liability of warehouses in this connection? Lamont Co.

Answer: This question which you present is very interesting. As you probably know for over 15 years I have followed, read and studied every higher court case decided in the United States involving warehousemen. Naturally, therefore, my information has to do specifically with these higher court decisions. I have found no decisions in which the courts have had to consider laws of special nature of the classification which you have outlined, and which relieve warehousemen of liability for negligence.

The cases to which I refer relate to the law that warehousemen must use "ordinary care." This degree of care is defined as that kind of care which the average, prudent and reasonably careful person would use to safeguard his own goods.

In other instances, the courts have held that "ordinary care," as used in

TRANSPORTATION MANAGER

With wide experience and thorough training in all phases of shipping, handling, warehousing and distribution, domestic and foreign. Present engagement extends over 10 years as Traffic, Purchasing and Credit Manager. Available anytime. Best references. Also, qualified to serve in combined capacity as personnel-purchasing - storekeeping - production (planning, scheduling and expediting)—credits and collections Office Manager. Proven ability over period of years warrants salary arrangement on basis of results obtained.

Address Box Z-194, care DandW
100 East 42nd St., New York 17, N. Y.

WE HAVE EXCELLENT
FACILITIES TO
RENDER SPECIALIZED
SERVICE—



Let LASHAM Serve You in the Chicago Area . . .

A State bonded public warehouse, with 25 years of satisfactory service. Supervised by men of long experience.

Modern sprinkler system, A.D.T. fire and burglary alarm. 24-hour watchman service.

All types of merchandise stored and distributed. Specializing in print paper.

Served direct by 4 railroads; Ill. Cent., Mich. Cent., C&NW and C&Q, with free switch service from all other RR. and boat lines entering Chicago.

Centrally located. Extremely low insurance rate. Write today for full particulars.

EDWARD LASHAM CO.
1545 SO. STATE ST. Phone VICTORY 8100 CHICAGO 5, ILL.

Of course by special contract a warehouseman may somewhat limit his liability but he cannot be relieved where the testimony shows that he or his employees were actually negligent in effecting or causing the loss.

I shall watch for new higher court cases on this subject of law, and shall report them in these pages.

Women Comprise 7.9% Of Railroad Employees

"If it had not been for women, the railroads could not operate during the wartime crisis," declared Miss Cornelia Edge, assistant head, personnel supply section, ODT, Washington, in an address at a two-day conference of women railroad executives in Chicago recently.

Two hundred and fifty thousand women are working in the transportation industry of the country, 112,000 of them with Class 1 railroads, the speaker stated adding that women workers comprise 7.9 per cent of railroad employees.

Purchases Hoody

Valentine Brown is now sole owner of Hoody Peanut Products, following purchase on retirement of Glenn Townsend, company head from 1914 to 1943. Mr. Brown has been with the company for 27 years, serving as manager for the past 10 years. (Haskell.)

CHICAGO, ILL

MIDLAND



A complete warehouse organization
fully equipped to handle merchandise rapidly and economically

with convenient locations for local trade and excellent transportation facilities for national distribution. Chicago Junction In and Outbound Union Freight Station—direct connections with thirty-eight railroads. Receiving Stations for Railroads, Express and Truck Lines on premises.

Inquiries Invited on Storage, Office and Rental Requirements



MIDLAND WAREHOUSES, INC.

1500 South Western Avenue,
Chicago 8, Ill.

CHICAGO, ILL.

Come to North Pier Terminal



NORTH PIER TERMINAL

Largest warehouse in the Great Central Market territory. Especially adapted for combination of office and warehouse or factory. • Splendid shipping facilities including all phases of transportation. • Rail, water, tunnel, truck. • Track capacity 150 cars. 2500 feet of dockage for boat unloading. • Direct free tunnel connection all railroads. • Universal station in building for out-of-town truck shipments. • Low insurance rates. • Heavy floor load. • Our general storage division operating in separate buildings with same facilities. • Storage in-transit, pool car distribution.

Offices are available in new section at 444 Lake Shore Drive • Ample free parking • Good transportation • Close to Loop.

North Pier Terminal Co.

509 E. Illinois St., Chicago 11—SUP. 5606



Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

Chicago Whse. Retires
Its Preferred Stock

Negotiation of a first mortgage loan for \$325,000 has enabled Griswold-Walker-Bateman Co., Chicago warehousing concern, to retire the outstanding preferred stock represented by participation certificates issued to bond holders during reorganization proceedings nine years ago. The stock was called for redemption Sept. 30, at a call price of \$10 per share, plus accrued interest.

Retirement of this stock, an announcement stated, completes the final chapter in reorganization of four first mortgage bond issues, aggregating \$776,500, covering various properties formerly owned by the Griswold-Walker-Bateman Trust. Since confirmation of the reorganization plan by the court nine years ago, all first mortgage bonds have been retired from earnings. At that time each holder of a \$1,000 bond received a new \$600 bond, plus 50 shares of preferred stock with a par value of \$10 per share. Redemption of this preferred stock thus means, in effect, it is pointed out, that former first mortgage bondholders who retained their securities, are receiving \$110 for each \$100 of original bonds. The extra \$10 represents the approximate amount of unpaid interest due at the time of reorganization, according to the statement. (Slawson.)

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

CHICAGO, ILL.

NATIONAL VAN LINES, INC.

2431 IRVING PARK RD., CHICAGO 18

Interstate moving of H.H. goods—Nationwide agents and warehouse facilities in all key cities. I.C.C. Certificate MC 42868. We specialize in pool car shipments of H.H. goods coast to coast in padded freight cars—No crating necessary—Low rates. Consign your shipments to our nearest warehouse. We will reship.

TO TRAFFIC MANAGERS: Our tariff is very low. Wire or write us when transferring personnel.
New York City: 1775 Broadway Los Angeles, Calif.: 124 North Center St.

CHICAGO, ILL.

For Personalized Warehousing

PRODUCERS WAREHOUSE CO.

344 No. Canal St. (6) C. & N. W. Ry.

THOMSON TERMINALS INC.

346 W. Kinzie St. (6) C. M. St. P. & P. R. R.

Prompt Deliveries

Advances Made

CHICAGO, ILL.

FIREPROOF CONSTRUCTION

Household Goods Storage Warehouse

REMER STORAGE & VAN CO.

5822-5824 N. WESTERN AVE.
CHICAGO 45, ILL.Commercial Hauling & Moving in Chicago
& Suburbs for 25 Years

Citrus Growers and Shippers Form Joint Problems Board for Research

Organization of a Joint Problems Board on Citrus Research, composed of representatives from California, Florida, Arizona and Texas, which will devote its activities to matters of growing, shipping, merchandising and technical development of the industry, was effected at a recent meeting at Phoenix, Ariz.

Regarded as one of the most progressive steps ever taken by the citrus industry, the research board is representative of growers and shippers in the Imperial and Coachella Valleys of California and the Salt River Valley and Yuma Mesa in Arizona, who expect to raise a fund of more than \$200,000 a year for research and sales promotion.

E. N. Chace, former director of the U. S. Department of Agriculture, Fruit and Vegetable Chemical Laboratory at Los Angeles, was named chairman of the research board. Other

members are: Byron Showers, Phoenix; Dr. L. G. MacDowell, director, Florida Citrus Commission, Lakeland, Fla.; W. E. Baier, research manager, California Fruit Growers Exchange, Ontario, Cal.; and William Platt, research Director, General Foods Corp., Los Angeles.

Speeding of greatly needed research, and avoidance of duplicated effort in promotion and merchandising, are two of the aims of the committee," E. J. Mehren, Phoenix, president, Desert Grape Fruit Industry Committee, declared. The board, acting as a central clearinghouse, will keep the entire industry informed on the progress of citrus research experiments being conducted by any organization, public or private, and keep the membership posted, as well, on matters dealing with new ways of shipping, packing, distribution, etc. (Herr.)

Anti-Freeze

Chemicals Bureau officials have warned that because manufacturers are well advanced in making up the nation's winter supply of anti-freezes on the basis of allocations of alcohols made several months ago, there can be no variation later in the percent-

ages of the various grades that will be available to the public, according to a WPB report. The great bulk of anti-freezes marketed will be based on ethyl and isopropyl alcohols. However, the over-all supply of anti-freeze will be ample for all expected demands, WPB officials said.

Only Seng Offers All These

No wonder so many outstanding companies use Seng Service! For *only* Seng offers all the advantages of a company's own "ideal" branch plant, *plus* the many other conveniences and Seng "extras" listed above.

Seng has spent years developing a large, yet flexible service that meets the needs of its many different customers. Today Seng offers you the largest *complete* warehousing and distributing service in the Chicago area.

A Seng representative is ready at any time to study your particular warehousing problems, and make recommendations. Of course, no obligation is incurred. Write or call a Seng representative today.

**the largest *COMPLETE*
WAREHOUSE and DISTRIBUTION
SERVICE IN CHICAGO**

For SAFETY • SATISFACTION • SERVICE Specify

SENG

**WATERWAY WAREHOUSE
RAIL and WATER**

310 W. POLK ST., CHICAGO, ILLINOIS • TELEPHONE WABASH 6850

Cost Factors in Distribution

(Continued from page 16)

vise management as to the cost of transportation in your own company? And, incidentally, do you really have all of the facts to enable you to provide the necessary information? If you must frankly tell yourself, "No," then this condition most certainly should give you plenty of food for thought as to the reason the proper cost data are not available to you.

But suppose you can honestly tell yourself "Yes, I do have all the items of cost or transportation at hand." Is it wise to wait for management to question you? Instead of delaying, would it not be wiser to present to management the vital facts before it is realized that you have failed to do so?

Necessary Details

You, as traffic manager, are expected to know more about your job than management knows about it. If your chief executive should ask you what the month's cost of "distribution" might be, could you tell him? If he should want to know the cost of "transportation" for the month, would you give him only that total, or would you include information showing how that total was made up? Would you include information showing how that total was made up of a

certain amount chargeable to production, and so much chargeable to selling, in a manner similar to that of the general sales manager reporting how his total sales figure is made up of specific amounts for each of the major groups of products sold?

It may be, though, that the cost department in your organization is not furnishing you with the necessary details of transportation cost. This could be for two reasons: (1) because you have not made a request for the data; (2) because the cost department does not segregate the items to show the details. If the latter is the real cause, obviously, you are not prepared to supply adequate information that will enable management to know the "actual condition of its business" in relation to the cost of transportation.

Re the Chart

Refer to the chart accompanying this article. It will be noted that it outlines the major points embraced by transportation cost. It is suggested that the chart be studied.

From the source of raw materials, to receiving department, to production line; thence, from production line to stock and shipping room onto the customer—are the main sources of cost of transportation.

From the lower section of the chart it will be noted that although they should be segregated for analysis of cost of transportation, nevertheless (a) freight inwards and (b) materials handling inwards are parts of the cost of production. Also (c) materials handling outwards and (d) freight outwards are shown as sectors of distribution which is a part of the cost of selling. However, items (a) to (e) combined make up transportation cost.

Whether or not this plan meets with the general, current cost accounting theory makes no difference. With the plan as outlined in the chart vital facts pertaining to transportation cost can be assembled to be used in attacking the problem of how to reduce cost of transportation.

Should Discuss Costs

It is further suggested that the chart be studied in relation to your own particular company. Does your organization's procedure provide for the segregation of such major classes of transportation cost as freight inwards, materials handling inwards, materials handling outwards, and freight outwards? Management should be in a position to know the cost of each of these; it may not require any additional information, but at least it should not be given any less.

These costs should be talked over with other department heads: the production manager would be interested in knowing how his part of transpor-



RAILWAY TERMINAL & WAREHOUSE CO.

444 WEST GRAND AVE., CHICAGO 10, ILL.



Merchandise Warehouses close to the Loop. Direct railroad connections. U. S. Customs Bonded and free storage. Low insurance rates.

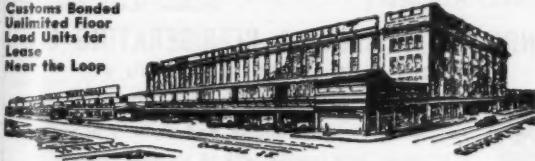


SOO TERMINAL WAREHOUSE "The Economical Way"

Division of Beatrice Creamery Co.
519 W. Roosevelt Road, Chicago 7, Ill.

Year-round candy storage, pool car distribution, negotiable warehouse receipts. Storage in transit. One-half million sq. ft.

Customs Bonded
Unlimited Floor
Load Units for
Lease
Near the Loop



CHICAGO, ILL.

Merchandise Storage and Distributors

WAKEM & McLAUGHLIN, Inc.

Estd. 1886

MAIN OFFICE—225 E. ILLINOIS ST., CHICAGO 11

U. S. Internal Revenue Bonded Warehouse
U. S. Customs Bonded Warehouse

A.D.T. Service

ADVANCES MADE

Our ample financial resources enable you to negotiate loans right in our office.

Prompt Delivery and Best of Service.



CHICAGO, ILL.

One of Chicago's Finest

A half million feet of modern warehouse space where you have every advantage for receiving, shipping and reshipping. Track space accommodates 360 railroad freight cars. 70 ft. covered driveways practically surround the clean, light and airy warehouse.

Located on the edge of Chicago's famous Loop and only one block from the mammoth new Post Office, Western Warehouse is in the heart of all business activity. Write for complete information.

WESTERN WAREHOUSING COMPANY

323 West Polk Street

Chicago 7, Ill.

CHICAGO, ILL.

For Distribution in CHICAGO Use

SYKES SERVICE

Fully sprinklered warehouse building for merchandise storage exclusively.
Centrally located—only 12 minutes from the Loop.
Complete warehouse service with personal supervision. Pool Car Distribution.

SYKES TERMINAL WAREHOUSE
929 West 19th Street
Chicago 8, Ill.

DECATUR, ILL.

H. G. Taylor, Pres. R. C. Shumate, Treas. & Mgr.

Decatur Warehouse Company (SHUMATE TRANSFER)

30 Industry Court, P. O. Box 988
Decatur 22
TRANSFER—STORAGE—DISTRIBUTION
MOVING—PACKING
Licensed—Bonded—Insured Carriers

JOLIET, ILL.

Telephone 4381 and 4382

Joliet Warehouse and Transfer Company

Joliet, Illinois

MERCHANDISE STORAGE AND DISTRIBUTION

Best distributing point in Middle West
Located on five Trunk Lines and Outer Belt
which connects with every road entering Chicago
No switching charges.
Chicago freight rates apply.

JOLIET, ILL.

WILL COUNTY WAREHOUSE COMPANY

Formerly Joliet Mfg. Co., which was Established 1849
150 Youngs Ave., Joliet, Ill.

Offers 50,000 Sq. Ft. of modern warehouse space, located on the C.R.R. and P.R.R. Roads. Private siding and free switching. General Merchandise storage.
Automatically Sprinklered Throughout
Member of AWA

MT. VERNON, ILL.

HARLOW MOVING STORAGE SERVICE

Local and long distance moving. Crating. Packing. Furniture Storage. Warehousing. Distribution. Local agents Greyson Lines.

Well constructed building of brick. 18,000 sq. ft. of wood floor space.
Mo. Pac. RR siding across street.

1793 PERKINS AVE. MT. VERNON, ILL. PHONE 2517-W

PEORIA, ILL.

OUR DEPENDABILITY YOUR ASSURANCES
OF SATISFACTION

FEDERAL WAREHOUSE CO.

800 So. Adams St.

Peoria 2, Ill.

Peoria is the logical Center of Distribution for Illinois. We will be pleased to explain our services and facilities.
Member of C.I.W.A.—A.W.A.—N.F.W.A.

PEORIA, ILL.

908-910 S. Washington St. (2)

Merchants Warehouse Co.

General Storage and Distribution

Specializing in Pool Car Merchandise.

Free Switching all R.R.'s Private Sidings.

Equipped to give same high grade service you would expect of your own Branch Whse.

We invite Your Inquiry

ROCKFORD, ILL.

BARTLETT WAREHOUSE

Modern Plant C.&N.W. Siding Free Switching
"Sparkling Service"

502-514 Cedar St. Phones: Main 133, 134

INDIANA—IOWA

EVANSVILLE, IND.

MEAD JOHNSON TERMINAL CORP.

P. O. Box 597, EVANSVILLE 2, INDIANA

"Where Waterway . . . Railway . . . Highway Meet"

With the most modern and most unusual River-Rail-Truck Terminal and Warehouse in the United States. Sprinklered—A.D.T.

Located only ninety miles from the country's center of population. Served by six large railroads, many motor freight lines and the American Barge Line, Mississippi Valley Barge Line, Union Barge Line and independent towing operations.

Merchandise and food commodities of every description, from every part of the globe, can conveniently reach, be economically stored, and then efficiently distributed from Evansville.

Write for booklet completely describing the many unusual services available.

Member of A.W.A.

a Represented by

NEW YORK

ALLIED DISTRIBUTION INC.

CHICAGO

11 WEST 42ND ST. PENN. 6-0946

1525 NEWBERRY AVE., MON. 5531

FORT WAYNE, IND.

**FORT WAYNE [WITH MIGHT AND MAIN]
STORAGE CO. THE SAME**

802-804 Hayden St., Fort Wayne 4
FIREPROOF AND NON-FIREPROOF BUILDINGS
Pittsburgh, Fort Wayne & Chicago R. R., Grand Rapids & Indiana R. R.;
Wabash R. R.—Private Siding—Pool Car Distribution

FORT WAYNE, IND.

Exclusively

Merchandise and Cold Storage



Modern Fireproof Warehouses—Centrally Located—P.R.R.
Siding—Lowest Insurance Rates—Pool Car Distributors—
Local Cartage Service—Branch Office Service.

MITCHELL SALES & STORAGE, INC.

435 E. Brackenridge St., Fort Wayne 2, Ind.
Warehouse Receipts on Staple Commodities

AMERICAN WAREHOUSEMEN'S ASSOCIATION

PETTIT'S
STORAGE WAREHOUSE CO.
414 E. COLUMBIA ST.
FORT WAYNE 2, IND.

**MDSE. & HHG. POOL CAR
DISTRIBUTION**

New York City
Representative: MR. J. W. TERREPORE
250 Park Avenue
Telephone: Plaza 3-1233 Chicago Representative:
MR. W. J. MARSHALL
53 W. Jackson Blvd.
Telephone: Harrison 1486

GARY, IND.

Established 1929

General Merchandise Storage and Distribution

Private Siding Indiana Harbor Belt R. R. Free Switching, Centrally Located, Pool Car Distribution, Motor Truck Terminal, Operating our own fleet of trucks.

GARY WAREHOUSE CO.

10th & Massachusetts St., Gary, Ind.
Phone Gary 6131

HAMMOND, IND.

**GREAT LAKES
WAREHOUSE CORP.**

General Merchandise—Storage and Distribution

Established 1882

E. C. Faure

Vice-Pres & Mgr.

FACILITIES—150,000 sq. ft., Fireproof, concrete-steel, brick constr. Siding on

IHB RR; over 50 cars. Located within Chicago switching district. Freight privileges.

SERVICE FEATURES—Motor term. on premises—Hourly del. to Metro. Chicago

and suburbs.

Members of American Warehousemen's Association, Indiana Warehousemen's Association, Indiana Chamber of Commerce.

(Tel.—Ham'd 2700-81)

Plummer Ave. & State Line St.

(Tel.—Chicago—Ext. 2200)



HAMMOND, IND.

Members N.F.W.A., Allied Van Lines

JOHNSON

Transfer and Warehouse

STORAGE FOR HOUSEHOLD GOODS AND
OFFICE FURNITURE

WAREHOUSE and OFFICE: 405 Douglas Street

INDIANAPOLIS, IND.

"Coburn Service for Efficiency"

**HENRY COBURN
STORAGE and WAREHOUSE CO.**

221 W. Georgia St., Indianapolis 9

Merchandise Storage, Distribution, Trucking

Leased Space—Offices—Low Insurance

Represented by

DISTRIBUTION SERVICE, INC. A.W.A.—Indiana W.A.



INDIANAPOLIS, IND.



HOGAN
TRANSFER & STORAGE CORPORATION

Indianapolis' Finest • Established 1892

HOUSEHOLD GOODS STORAGE • PRIVATE RAIL SIDING
MOVING • PACKING • CRATING • SHIPPING

INDIANAPOLIS, IND.

Phone MArket 4361

INDIANA TERMINAL & REFRIGERATING CO.

230-240 So. Penna. St., Indianapolis 4

Sprinklered Warehouses

Office Rooms

General Merchandise and Cold Storage

Down Town Location with RR tracks in building.

INDIANAPOLIS, IND.

Riley 5513

A Complete Service

General Merchandise—Cold Storage
Pool Car Distribution



Modern Motor Trucking Service
Check Out Service



All Merchandise On Check Out Cars
Placed On Platform Ready For Delivery



Consign Shipments Via N.Y.C.
Store Door Delivery and Pick-up for above RR.



Operating 53 truck units

**STROHM WAREHOUSE
AND CARTAGE COMPANY**

230 WEST McCARTY ST., INDIANAPOLIS



AMERICAN WAREHOUSEMEN'S ASSOCIATION

station cost might be reduced, thus decreasing his final cost of production; the general sales manager would be delighted if his cost of selling could be lowered by reducing that part of it which is distribution. And none of the others should be ignored. As an example, the advertising manager would be glad to know of ways in which the cost of shipping advertising matter might be reduced.

A wise man once said: "If you do not overlook anything, you yourself will not be overlooked," and this applies to traffic managers as well as to others.

The Broader Aspect

One of the things which traffic managers should not overlook is the opportunity to help reduce cost of transportation. To properly pursue the question, it is necessary to have the

items of transportation cost segregated to provide vital facts. These facts will be needed for use in meeting the intense competition of the postwar period.

Throughout this article stress has been laid on the subject as it applies to an individual industrial organization. However, the broader aspect also should be kept in mind.

Transportation cost is part of the total cost of distribution when considered from the viewpoint of industry as a whole. Taking industry from the over-all angle, on a nation-wide or international basis, then "distribution" starts with the movement of raw materials and ends only when a finished product has reached its ultimate destination, the final user or consumer."

Therefore, while transportation cost is only a part, yet it is one of the most important parts of cost of distribution.

Says U. S. Trade Will Double In Postwar Era

Edward M. Bernstein, assistant director of monetary research, U. S. Treasury, at a New York Board of Trade meeting stated that post war world trade, assuming normal full employment, will run around \$80,000,000,000 of which the U. S. will have \$18,000,000,000, or 22½ per cent. This is double prewar trade.

U. S. exports were estimated by Mr. Bernstein at \$10,000,000,000 and imports at \$8,000,000,000, or 80 per cent of export volume, and he suggested that the difference, \$2,000,000,000, each year be loaned on a long-term basis until foreign nations were able to aid themselves and balance trade figures.

Washington Industries Form Association

Merger of two long-established organizations, the Manufacturers' Assn. of Washington and the Federated Industries of Washington, both of Seattle, has been approved.

The new body will be known as the Association of Washington Industries, according to Frank West, manufacturers' group president, and Alex Hay, Federated president. Both organizations have been in operation about 50 years. (Haskell.)

Cargo Loss and Damage Causes Discussed

Excessive cargo losses and damage was principal subject of discussion at a Los Angeles meeting between Shiplley Burton, Eleven States Western Conference, and Southern California leaders of the California, Southern California and national trucking associations. Trend was attributed to: Shift of industry from cases to cartons for items previously shipped in heavy wood containers; predominant use of cans instead of glass by fruit, food and vegetable packers; inefficient packing; excessive breakage said to be due largely to new and inexperienced help in shipping departments; thefts by employees and sneak thieves, due to the labor shortage and hiring of workers without proper inquiry of past records. (Herr.)



THE TRIPP WAREHOUSE COMPANY

1001 E. New York Street, Indianapolis 7, Ind.
Complete facilities for the storage and distribution of

MERCHANDISE

PRIVATE SIDING—BIG FOUR—CONNECTING WITH ALL RAILROADS—NO SWITCHING EXPENSE. TRUCK SERVICE.

Member A. W. A.—Ind. W. A.
Write for complete description of services
to meet your individual requirements.

Represented by
NEW YORK BILLING DISTRIBUTION INC. CHICAGO
N WEST 43RD ST. PENN 6-0942 1525 NEWBERRY AVE. MONROVIA

MUNCIE, IND.

B. W. HARDESTY, Owner & Mgr.



HARDESTY TRUCKING

622 Broadway Telephone 4113

Local and Long Distance

MOVING—STORAGE—CRATING

Consign Shipments via LKO or Big 4. Distribution of Merchandise & Household Goods. Pool Cars.

Agent for Am. Mfrs. Trans. Co.—National Furniture Movers.

SOUTH BEND, IND.

Ully Cold Storage & Warehouse Co.

401-403 S. Notre Dame Ave., South Bend 22

Merchandise and Cold Storage

Modern Cold Storage Locker Plant, 1400 Capacity

Private Siding on Grand Trunk Western Railroad

Pool Car Distribution, Trucking Service

Member A.W.A.—Ind. W.A.

TERRE HAUTE, IND.

A.D.T. Service

Distributors Terminal Corp.

Merchandise Storage and Distribution a Specialty
Pool Cars Solicited

Motor Trucks for Store Door Delivery. Our clients do the selling—
We do the rest. U.S. Licensed and Bonded Canned Foods Ware-
house License No. 12-4.

CEDAR RAPIDS, IOWA

AMERICAN TRANSFER & STORAGE CO.

401-411 FIRST ST. S. E. PHONE 2-1147

SINCE 1907

General Merchandise Warehousing and Distribution.

Cold Storage.

Modern Brick Warehouse, Sprinklered 80,000 Square Feet,
Siding on C. M. St. P. & P. Rd. Free Switching from
Other Roads. Motor Freight Terminal. Agent Greyvus
Lines.



CEDAR RAPIDS, IA.

Cedar Rapids TRANSFER & STORAGE CO.



FIREPROOF WAREHOUSE
AND TRUCK TERMINAL ON TRACKAGE
All Modern Facilities For Efficient Warehousing
and Distribution of Merchandise
DAILY SERVICE IN EVERY DIRECTION

DAVENPORT, IOWA

EWERT & RICHTER EXPRESS & STORAGE CO.

At Davenport, Iowa, Rock Island and Moline, Ill.
Fireproof Warehouses on trackage. Phone Dial 3-3653.

Branch offices and Warehouse service—Mississippi Valley reaching 20 Million Consumers.
Pool- and Step-over Distribution.
Truck Terminal & Motor Freight Service.
Members A.W.A. & I.W.A.
Associated Warehouses, Inc.
Agents, ALLIED VAN LINES.



IOWA

DAVENPORT, IOWA

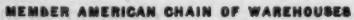
Fireproof
Warehouse
on
C. R. I. & P. Ry.
MERCHANTS
TRANSFER & STORAGE CO.
ESTABLISHED 1903

Merchandise Storage, Furniture Storage &
Pool Car Distribution

MEMBERS: A.W.A.—N.F.W.A.—I.A.W.A.—
AGENTS—ALLIED VAN LINES, INC.

428
Western
Ave.







DES MOINES, IOWA

BLUE LINE STORAGE CO.

200-226 - Elm - Des Moines 9, Ia.



Merchandise and Household Goods
Storage

Private Siding—Free switch from
any R.R. entering Des Moines

Members: A.W.A.—N.F.W.A.—I.A.W.A.—N.O.W.A.



DES MOINES, IOWA

Member American Chain of Warehouses

MERCHANTS
TRANSFER & STORAGE CO.

428
Western
Ave.

50 Mulberry
Des Moines 6

TRY OUR SUPERIOR SERVICE

50 years' warehousing nationally known accounts
gives you Guaranteed Service

Daily reports of shipments and attention to
every detail

DES MOINES, IOWA

112-128 TENTH ST.

MERCHANDISE
STORAGE

Reppert
TRANSFER & STORAGE CO.

FURNITURE
STORAGE

Pool Car Distribution



Special Heavy Equipment for Machinery, Boilers, Presses,
Siding C.R.I. & P. and D.M. Union Ry. Free Switching from any R.R.
Operators—Wholesale Merchants Delivery—Retail Merchants Delivery
Agent Greyvan Lines.

DES MOINES, IOWA

Established 1880
Member
MANUFACTURERS
ASSOCIATION

Member of A.W.A.—N.F.W.A.—I.A.W.A.
WHITE LINE
TRANSFER & STORAGE COMPANY
120 S.W. 5th Ave., Des Moines 8, Iowa
Merchandise & Household Goods Storage
Lowest Insurance Rate, Pool Car Distribution, Private Sid-
ing, Free Switching, Freight Rail or Truck Pick-up Service.
Associated to
ALLIED DISTRIBUTION INC. CHICAGO
NEW YORK 1125 NEWBERRY AVE. MON 5511

DUBUQUE, IOWA

COMPLETE DISTRIBUTION SERVICES

222,000 sq. ft. of floor space in buildings of brick-concrete-
steel construction. Chicago-Great Western R. R. siding with
10 car capacity. Free switching with Federal Barge Lines.
Low insurance rates. Complete-Motor-Freight-Facilities.
Pool car distribution—all kinds. Merchandise & House-
hold Goods Storage, industrial and office space for rent.

Write today

DUBUQUE STORAGE & TRANSFER CO.

3000 JACKSON ST.

DUBUQUE, IOWA

Member of Iowa Warehouse Ass'n.

Chicago Representative: National Warehousing Service, 519 W. Roosevelt

Rd. (7) — Tel. Caatal 3743



Member NATIONAL FURNITURE WAREHOUSEMEN'S ASSN.

Agent ALLIED VAN LINES, INC.

MASON CITY, IOWA

CADWELL STORAGE & MOVING CO.

Private siding CM&SP with full switching reciprocity—
CRI—CCW—M&StL—CNW.

100,000 sq. ft. Dry Storage Space.

SPECIALIZE IN POOL CAR DISTRIBUTION with
LOCAL CARTAGE FACILITIES. Member I.W.A.

Grape Fruit Pack Is 5,224,000 Boxes Compared With 3,776,642 Year Ago

Grape fruit shippers of California and Arizona shipped a season volume of the 1943-44 crop totaling 5,224,000 packed boxes, as compared with 3,776,642 boxes in the 1942-43 season, the Grapefruit Industry Committee reported recently. Returns from the 1943-44 crop were reported as \$6,509,941, largest in the history of the grapefruit industry.

The Grapefruit Industry Committee functions under federal law to regulate grapefruit shipments from the Imperial and Coachella Valleys of southeastern California and the Salt River Valley and Yuma Mesa in Arizona. Disposition of every box of the

product sold must be reported to Byron Showers, manager of the committee, stationed in Phoenix headquarters.

Of the 1943-44 crop, 2,977,000 boxes were sold as fresh fruit and 2,247,000 boxes, or 43 per cent, went to juice canners.

Manager Showers estimated that the grapefruit which sold fresh this year brought \$47 a ton to the grower, on the tree; the processed food, \$26 a ton on the tree. In the preceding season the growers received a return of \$35 a ton for fresh fruit and \$16 for that which was canned. (Herr.)

Prefabricated House Co-op Formed

According to recent releases, Precision-Built Home Corp., newly formed and largest single co-operative group in the country devoted exclusively to promoting housing construction, will merchandise homes through department and furniture stores, contractors, lumber dealers, contractors, retailers, insurance companies, lending institutions, prefabricated

cators, industrial companies for employees, and through the export market.

Financed largely by contractors, dealers in building supplies and others engaged in various branches of the housing industry in all parts of the United States, according to F. Vaux Wilson, Jr., president, the licensed contractor-builders will set up fabricating plants in the major centers to service department store customers as well as others. These fabricating plants, he added, will normally operate in a 75-mile radius.

Hoyt Berry Picker Employed in Oregon

The Hoyt Cranberry picker, mechanical device employing suction method in picking, has been in operation at L. M. Kranick bog, Bandon, Ore., and under favorable conditions will pick 300 lb. of berries an hour, equivalent of about 25 picker measures.

A product of Grays Harbor Equipment Co., it weighs about 1000 lb., is mounted on a chassis with four pneumatic tires and is towed. A 9 hp. air-cooled gas engine powers the suction pump and berries are drawn into the machine through a large rubber hose. Latest protective device added by Hoyt is an air-controlled method of preventing the berries from being bruised as they are drawn into the machine. (Haskell.)

Carborundum Warehouses

The Carborundum Co., Niagara Falls, N. Y., abrasive manufacturer, is opening warehouses in Atlanta, Ga. and St. Louis, Mo., "in an attempt to follow the markets as they develop," President Arthur Batts announced. The Atlanta facilities will be the first in the deep South. The warehouses will permit quicker deliveries, he pointed out.

IOWA—KANSAS—KENTUCKY—LOUISIANA

MASON CITY, IOWA

A. W. A.—May. W. A.

MASON CITY WAREHOUSE CORPORATION

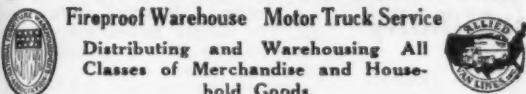


Merchandise Storage, Household Goods Storage, Pool Car Distribution, Local and Long Distance Moving. Packing & Crating, Local Transfer, Private Sidings, Motor Freight Terminal.

WATERLOO, IOWA

IOWA WAREHOUSE CO.

Fireproof Warehouse Motor Truck Service

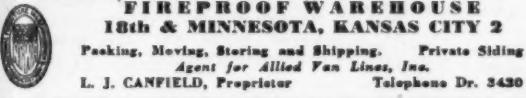


Distributing and Warehousing All Classes of Merchandise and Household Goods

KANSAS CITY, KANSAS

INTER-STATE

MOVING AND STORAGE COMPANY
FIREPROOF WAREHOUSE
18th & MINNESOTA, KANSAS CITY 2



Packing, Moving, Storing and Shipping. Private Siding Agent for Allied Van Lines, Inc. L. J. CANFIELD, Proprietor Telephone Dr. 3430

PARSONS, KANSAS

Member of A.W.A.

PARSONS COLD STORAGE COMPANY

2021 GABRIEL AVE.

COLD STORAGE AND MERCHANDISE WAREHOUSING
POOL CAR AND SPOT STOCK DISTRIBUTION
QUICK SERVICE AND REASONABLE RATES

10 car siding on MK&T—Free switching. Pick up and delivery service for 2 Motor Freight lines operating out of our terminal.

TOPEKA, KANSAS

Agent for Allied Van Lines, Inc.

TOPEKA TRANSFER and STORAGE Co., Inc.

Established 1880

N.F.W.A.

FIREPROOF WAREHOUSES FOR MERCHANDISE & HOUSEHOLD GOODS
TWICE DAILY TRUCK SERVICE TOPEKA-KANSAS CITY
CITY-WIDE DELIVERY SERVICE

Private Switch Connections AT & SF, C&I & P, U.P. and M.P.

WICHITA, KANSAS

A Modern Distribution and Warehousing Service

Brokers Office & Warehouse Co.

149 North Rock Island Ave., Wichita 2

B. W. BILLINGSLEY, JR., Manager

Member of American Chain of Warehouses

WICHITA, KANSAS

Write or Wire

Cassell
TRANSFER & STORAGE CO.

125 No. Rock Island Ave., Wichita 2
Fireproof Storage and Sprinkler System

WICHITA, KANSAS

Chas. Knorr, Mgr.

MID-CONTINENT WAREHOUSE COMPANY

BONDED

619 East William St., Wichita 2.

MERCHANDISE STORAGE DISTRIBUTION
A SUPERIOR SERVICE REASONABLY
AND INTELLIGENTLY RENDERED

WICHITA, KANSAS



LOUISVILLE, KY.

Louisville Public Warehouse Company

131 EAST MAIN ST., LOUISVILLE 2

25 WAREHOUSES

944,000 SQUARE FEET

Louisville Member

AMERICAN CHAIN—DISTRIBUTION SERVICE, INC.

Gen'l Mds.

H. H. Goods

NEW ORLEANS, LA.

E. B. FONTAINE, Pres. & Mgr.

Commercial Terminal Warehouse Company
INCORPORATED

Modern Merchandise Warehouses

A dependable agency for the distribution of merchandise and manufactured products.



Storage Cartage Forwarding
Distributing Bean Cleaning
and Grading Fumigating

Office 402 No. Peters Street
New York—Chicago NEW ORLEANS 16 LOUISIANA

NEW ORLEANS, LA.

Douglas Shipside Storage Corporation

Douglas Public Service Corporation

New Orleans 1, La.
Sprinklered storage —
1,050,000 square feet.
Machinery and Furniture —
Switch truck capacity —
100 cars.
Nine warehouses, convenient to your trade.
Loans made against negotiable receipts.
Trucking Department operating 100 trucks.
Insurance Rates 12% to 15%.



NEW ORLEANS, LA.

Member of A.W.A.

Independent Warehouse Co., Inc.

2800 CHARTRES ST., New Orleans 17
Specializing in MDSE Distribution
Operating Under Federal License

All concrete Warehouses, sprinklered, low insurance rates. Low handling costs. Located on Mississippi River—Inland connection. Switching connections with all rail lines. State Bonded. Inquiries Solicited.



NEW ORLEANS, LA.

New Orleans Merchandise Warehouses Ass'n.

MALONEY TRUCKING & STORAGE, Inc.

133 NORTH FRONT ST., NEW ORLEANS 1

An Able servant to the PORT OF NEW ORLEANS
Complete warehousing facilities—Distribution—Weighing—Forwarding—Fumigating—Storage—Cartage—Field Warehousing—Offices—Bunks—Display Rooms—Sprinklered Risks.

UNITED STATES AND STATE BONDED

— Represented by

NEW YORK 11 WEST 42ND ST. PHILA. 6-0360 CHICAGO 1525 NEWBERRY AVE. MILWAKEE



Cold Storage . . .



Liquidation of Some WFA Food Stocks Held Likely After Defeat of Germany

Between May 1 and Oct. 1, \$22,000,000 worth of government-owned food stocks was moved into civilian distribution channels, Lee Marshall, director of distribution, War Food Administration, told the National Assn. of Food Chains at its Chicago convention recently. Egg sales, including 13 million dollars worth of shell eggs and more than a million dollars of frozen eggs, accounted for the larger portion of the total, he said.

Included also, in the stocks sold were \$3,000,000 worth of farm products, mainly beans, peas and rice; \$2,000,000 of canned fruits and vegetables; and varying quantities of fats, oils, dairy products, coffee beans, sugar and citric acid.

Of the 121 food distribution orders issued since early last year, 48 have been revoked, Mr. Marshall said, adding that this policy of cancelling set-aside and other war orders as soon

as their objective has been reached, will be continued. There will be no dumping, he emphasized, and food will be kept out of speculative channels.

"We want to see regular commercial facilities operate in a normal fashion just as soon as possible," he stated. "We intend to keep only those war food orders in effect which war needs require."

Until the war in Europe is over, he continued, the government's 2,000,000-ton stock of food is likely to be maintained. But after defeat of Germany, liquidation, especially of lend-lease reserves, will be started, he stated. Currently, he said, WFA's large working inventory of stocks on hand is necessary to do a business of \$8,000,000 a day. Stocks are turned almost completely every three months this, he declared, being "a pretty good indication that we do not have any too much food in storage." (Slawson.)

Butter Box Packaging Schedule Proposed

A proposed Practice Recommendation for Butter Boxes and Packages submitted to several thousand butter producers and packers, manufacturers of fibre boxes, and others interested, for acceptance, according to an announcement of the Division of Simplified Practice of the National Bureau of Standards, U. S. Department of Commerce, contemplates establishment of a simplified schedule of types and sizes of packages and maximum inside dimensions of fibreboard boxes for the recommended standard packages.

New Texas Plant

Construction has started on a \$75,000 fire proof cold storage building at E. Houston and N. Cherry Sts., San Antonio, Tex., by the Merchants Ice and Cold Storage Co. It is reported that it will have a net piling space of 250,000 cu. ft. and will be convertible for use as freezer or cold storage (Grissam.)

NEW ORLEANS, LA.

T. E. GANNETT, Owner



Standard Warehouse Company
100 Poydras St., New Orleans 8, La.

Complete Warehousing Service

SHREVEPORT, LA.

*The Distribution Center
of ARK.—LA.—TEX.*

SPECIALIZING IN

MERCHANDISE STORAGE and POOL CAR DISTRIBUTION

Modern fireproof facilities with sprinkler system . . . Private siding . . . Watchman service . . . Low insurance rates . . . Truck connections with all motor freight lines . . . Courteous, efficient service for thirty-two years . . . IF you want your customers to get the best in Distribution Services HAVE HERRIN HANDLE!!

HERRIN TRANSFER and WAREHOUSE CO., INC.
MARSHALL AT DAVIS STREET, SHREVEPORT 94
Household Goods Storage and Transfer. Trucking Delivery Service.

BANGOR, MAINE

McLAUGHLIN WAREHOUSE CO.

Established 1875

Incorporated 1918

General Storage and Distributing

Rail and Water Connection—Private Siding

Member of A.C.W.—A.W.A.—N.F.W.A.—Agent A.V.L.

BALTIMORE, MD.

For Details See Directory Issue
Distribution and Warehousing

BALTIMORE FIDELITY WAREHOUSE CO.

Hillen & High Sts., Baltimore 2

T. E. WITTERS, President

Baltimore's Most Modern Merchandise Warehouses

Rail and Water Facilities

Pool Car Distribution—Storage—Forwarding
Private Siding Western Maryland Railway



BALTIMORE, MD.

Incorporated 1905

Baltimore Storage Co., Inc.

N. W. Cor. Charles and 26th Sts.

Baltimore 18

MODERN FIREPROOF WAREHOUSE. EVERY FACILITY
FOR THE HANDLING OF YOUR SHIPMENTS.

Exclusive Agents for

AERO MAYFLOWER TRANSIT CO.

Vans Coast to Coast Canada and Mexico

BALTIMORE, MD.

CAMDEN WAREHOUSES

Rm. 201, Camden Sta., Baltimore 1
Operating Terminal Warehouses on Tracks of

The Baltimore & Ohio Railroad Co.

A.D.T. Private Watchmen, Sprinkler
Storage—Distribution—Forwarding
Tobacco Inspection and Export—Low Insurance Rates
Consign Via Baltimore & Ohio Railroad

BALTIMORE, MD.

U. S. Customs
Bonded Draymen



Main Office: 6200 Blk. Philadelphia Rd.

DAVIDSON TRANSFER & STORAGE CO.

Household Goods and Merchandise—Storage—Delivery
—Operating—Special Flat Bed Trucks for Lift Cases
Agents: Allied Van Lines . . . Member N. F. W. A.

BALTIMORE, MD.

Martin J. Reilly, Pres. A. Bernard Heinz, Vice-Pres.

FIDELITY STORAGE CO.

2104-6-8 MARYLAND AVE.

Baltimore's Modern Fireproof Warehouse

Your Clients' Effects Safe All Collections Promptly Remitted

MOTOR FREIGHT SERVICE

Household Goods Pool Car Distribution Merchandise

Member of N.F.W.A.—W.F.W.A.—M.M.T.A.

Agent for Allied Van Lines, Inc.

BALTIMORE, MD.

Norman Geipe**VAN
LINES****E. FIRE-PROOF
STORAGE WAREHOUSES**524 to 534 WEST LAFAYETTE AVE., BALTIMORE 17
The Most Complete Moving and Storage Organization in Baltimore.
Long Distance Moving to 34 States—Certificate granted—MC-52452.
Tariff-Independent Movers' and Warehousesmen's Assoc.

BALTIMORE, MD.

SECURITY STORAGE CO.

15 W. North Ave., Baltimore 1

EFFICIENT WAREHOUSEMEN

MOTOR VAN SERVICE

RESPONSIBLE AND COURTEOUS MANAGEMENT



BALTIMORE, MD.

Founded 1893

TERMINAL WAREHOUSE CO.Davis & Pleasant Sts., Baltimore 2
Operating four Modern Warehouses on tracks
of Pennsylvania Railroad Company.

Resources \$750,000

Trucking Storage

A.D.T. Watchmen

Pool Car Distribution

Bonded Space

Financing

Represented by Associated Warehouses, Inc., New York and Chicago

BOSTON, MASS.

Operated by Boston Tidewater Terminal, Inc.

CHARLES RIVER STORES

131 BEVERLY STREET—BOSTON 14, MASS.



Located within the city limits. Adjacent to North Station. Brick and concrete buildings, some sprinklered and heated. A.D.T.

burglary-alarm service.
300,000 square feet U. S.
Customs & Internal Revenue bonded space. Boston & Maine R.R. delivery.

BOSTON, MASS.

CLARK-REID CO., INC.

GEO. E. MARTIN, President

GREATER BOSTON SERVICE

HOUSEHOLD GOODS STORAGE—PACKING—SHIPPING

OFFICES: 83 Charles St., Boston

MAIL-FWA, 380 Green St., Cambridge

MAIL-FWA, 380 Green St., Cambridge



BOSTON, MASS.

CONGRESS STORES, Inc.

38 STILLINGS ST., BOSTON 10

GENERAL MERCHANDISE STORAGE

Central Location—Personal Service

Pool Car Distribution

Sidings on N. Y., N. H. & H. R. R.

Member Warehousesmen's Assn.

Protected by A.D.T. Service

BOSTON, MASS.

Established 1895

D.W. DUNN CO.

PACKING MOVING

STORING SHIPPING

Member May W. A.

3175 Washington St.

BOSTON, MASS.

FITZ WAREHOUSE CORPORATION

operating

ALBANY TERMINAL STORES

137 Kneeland Street, Boston 11

GENERAL MERCHANDISE STORAGE

B. & A. R.R. Delivery

Represented by

NEW YORK 1535 NEWBERRY AVE., MONROVIA

CHICAGO

11 WEST 41ST ST., PHILA. 6-0166

1535 NEWBERRY AVE., MONROVIA

**San Francisco Denies
Rail Embargo Rumor**

The rumor that, due to "port congestion" there may be an embargo placed on shipments by rail to San Francisco from supply sources in Eastern States, has been vigorously denied in San Francisco. Using the threat of such an embargo, local merchants are being urged by Eastern producers to stock up in anticipation of cessation of shipments in the near future. One reason given for this threat is intensification of the war in the Pacific.

Port authorities in San Francisco are prevented by military secrecy from giving facts and figures on the amount of cargo awaiting shipment, number of rail cars on hand, and so on, but this statement is made: there are substantially fewer ships in the Bay now than a few months back, and there was no congestion then. A ship repair bottleneck which kept vessels tied up has now been overcome; and threats of congestion have been further removed by the railway control stations and the holding yards for military and other Government rail cargo. A year ago the lower Bay area had a peak car handling capacity of 3000 cars daily. The peak is now three times that number. No transformation embargo is contemplated, officials say. (Gidlow)

**Increase of Locker Plants Predicted
—L. R. Uhrig Heads National Operators**

Louis R. Uhrig, Carrollton, Mo., has been elected president of the National Frozen Food Locker Assn., succeeding George O. Schlageter, Streator, Ill. Others elected at the sixth annual meeting held recently in Columbus, O., were: C. G. Holme, Sebastopol, Cal., first vice president; Harry Flory Eaton, O., second vice president; and L. E. Bothell, Monroe, Wis., third vice president. Albert Gugedahl, Des Moines, Ia., and L. T. Potter, Waterloo, Iowa, were renamed secretary and treasurer, respectively.

Citing home storage units as "definite adjuncts" to the locker plant, retiring association President Schlageter told delegates that postwar years will see the present 5800 locker plants in the country multiplied by thousands. He predicted the operator will continue to render the services of slaughtering, cutting, packaging, and quick-freezing of large quantities of meat and food, while the home unit will serve as a short time supplement.

Sen. George D. Aiken, Vermont, told members that as long as operators continue to feature service, their profits are inevitable, and he urged them to use the educational possibilities of their business to improve the diet and living habits of the nation. He also

said that America must never again permit a policy of scarcity.

"Only through full employment and a high purchasing level can the products of American farms and industry be bought and used," he declared, and predicted that the future would see a substantial lowering of international trade barriers and an increase in the purchasing power of the people of other nations.

Other speakers included: Phil Hendrick, Universal Cooler Corp., Marion, O., who discussed low temperature storage units and their effect on the frozen food industry; R. G. Nagler, of Deep Freeze Corp., Chicago, on the merchandising of frozen foods for the units; Dr. Donald K. Tressler, Consumers' Institute, General Electric Co., Bridgeport, Conn., who discussed merchandising possibilities.

Demonstrations were conducted in meat cutting and boning by K. F. Warner, of the Department of Agriculture, Washington, D. C., and in poultry by C. M. Ferguson, of Ohio State University.

Panel discussions included plant managers, dietitians, food research authorities, manufacturers, and suppliers. (Kline)

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

D and W, December, 1944—81

The Inter-American Highway

(Continued from page 20)

required equipment at convenient points in Central America, the construction of camps and the accumulation of supplies by Nov. 15, 1942, so that with the opening of the dry season construction could be started simultaneously at all possible points. Contracts were let in August less than a month after final instructions to proceed. But the difficulties in securing equipment and forwarding it to points in Central America were such as seriously to retard the initial organization and preparation. Even today, not all needed equipment has arrived on the respective sections.

The almost complete failure of transportation by water to Central America from ports of the United States on both coasts not only quite destroyed the possibility of carrying out the original program, but emphasized as almost nothing else could the necessity for the very project that was being prevented by the inevitable course of events. Indeed, so keen became the pressure to secure some outlet from Central America that plans were successfully carried forward to construct a railroad bridge at the Suchiate River between the towns of Mariscal and Ayutla at the head of rails respectively in Mexico and Guatemala. But the building of the

bridge and the creation of a freight transfer station at Ayutla, Guatemala, did not come in time to relieve the need and so difficult became shipping conditions that one contractor was entirely unable to equip his job and the contract was cancelled.

Other Difficulties

Other difficulties have been encountered that were not to be expected. The rainy season that normally would have tapered off to three or four inches for December with most of that before the 15th of the month carried on almost unabated in the upper elevations and often in the lower into January, February and even into March in some places. As the job was in large part one of making the dirt fly, the continued rains rather effectively interfered.

The completion of the instrument survey over the hitherto unsurveyed section of the continental divide in Costa Rica revealed an exaggerated series of conditions, expected in lesser degree but occurring far beyond anything previously contemplated. It was known from reconnaissance surveys carried out over wide areas in southern Costa Rica that the construction there would probably be the

most difficult between Mexico and the Canal Zone. It was thought that the elevations already reached in Mexico and Guatemala would exceed anything required to get over the continental Divide in Costa Rica. But the section between Cartago and San Isidro de General in Costa Rica is far the most difficult to construct between Alaska and the Canal Zone.

Rough Going!

The altitude at the pass as developed by instrument surveys is 10,931 ft., about 400 ft. higher than any other point along the route. There are about 30 km. of heavy rock excavation along the highest part of the line where a volcanic dike rises through the sharp slopes of the cordillera and comes so close to the surface as to enter the road prism throughout a long series of cuts. This source dike makes the descent from the pass to within about 15 km. of San Isidro extremely difficult. The average excavation for 27 km. will exceed 157,000 cubic meters a kilometer and one kilometer will run about 366,000 cu.m. This is roughly 760,000 cu.yd. a mile.

Engineers of Public Roads Administration who are familiar with the heaviest highway construction in the United States over the Rockies and in the high Sierras pronounce this section the heaviest road work ever encountered anywhere. Reconnaissance conducted at intervals over several

BOSTON, MASS.

Hoosac Storage and Warehouse Company

Lechmere Square, East Cambridge 41, Boston

FREE AND BONDED STORAGE

A.D.T. Automatic Fire Alarm

Direct Track Connection B. & M. R. R.
Lechmere Warehouse, East Cambridge, Mass.
Hoosac Stores, Hoosac Docks, Charlestown, Mass.
Warren Bridge Warehouse, Charlestown, Mass.

BOSTON, MASS.

W. A. KELSO
Pres.

A. WALTER LARKIN
Treas. & Mgr.

J. L. KELSO COMPANY

Established 1894
General Merchandise Warehouses
UNION WHARF, BOSTON 13

Connecting all railroads via
Union Freight Railroad Co. A.D.T. Service
Member of Mass. W. A. Motor Truck Service

BOSTON 13, MASS.

453 COMMERCIAL STREET

MERCHANTS WAREHOUSE CO.

Specially equipped to handle bale and bag commodities. Private railroad siding connecting all railroads. Free and bonded storage.

A. W. A.

M. W. A.



BOSTON, MASS.

QUINCY MARKET COLD STORAGE AND WAREHOUSE COMPANY

Incorporated 1881

178 Atlantic Ave., Boston 10, Mass.

BOSTON, MASS.

SIBLEY STORAGE, INC.

90-120 McGRATH HIGHWAY, SOMERVILLE, MASS.

PRIVATE RAILROAD SIDING SERVED BY

B. & M. R. R.

B. & A. R. R.

BOSTON, MASS.

WIGGIN TERMINALS, Inc.

50 Terminal St.

Boston (29)

Mass.

STORAGE

B. & M. R. R.
Mystic Wharf
Boston

N. Y. N. H. & H. R.R.
E. Street Stores
South Boston

LYNN, MASS.

LYNN STORAGE WAREHOUSE CO.

154-156 Pleasant St.

The only Fireproof warehouses on the North Shore complete with every facility and private sidings for the storage and distribution of merchandise, automobiles and household goods. 100,000 sq. feet of space.

Distributors—Packers—Shippers—Movers
Member N.F.W.A.—Mass. F.W.A.



NEW BEDFORD, MASS.

NEW BEDFORD STORAGE WAREHOUSE CO.

MAIN OFFICE — 152 FRONT STREET

Large modern warehouses centrally located in wholesale district—specially constructed for storage, handling and distribution of general merchandise.

Storage and Industrial Space for Rent or Lease
Furniture, Storage, Packing and Shipping
Member of AWA—NFWA—AVL—American Chain of Warehouses.



PITTSFIELD, MASS.

T. ROBERTS & SONS, INC.

Local and Long Distance Furniture Moving

Fireproof Storage Warehouses
 Household Goods Storage — Packing — Shipping
 Merchandise Storage and Distribution
 Pool Car Distribution

DIRECT R.R. SIDING B. & A. R.R. OR ANY R.R.

SPRINGFIELD, MASS.

ATLANTIC STATES WAREHOUSE AND COLD STORAGE CORPORATION

385 LIBERTY ST., SPRINGFIELD 1

General Merchandise and Household Goods Storage. Cold Storage for Butter, Eggs, Poultry, Cheese, Meats and Citrus Fruits
 B. & A. Sidings and N. Y., N. H. & H. R. R. and B. & M. R. R.
 Daily Trucking Service to suburbs and towns within a radius of fifty miles.

Member of A.W.A.—M.W.A.

SPRINGFIELD, MASS.

E. G. Monney, Pres. J. G. Hyland, Vice-Pres.

HARTFORD DESPATCH H and WAREHOUSE CO., Inc.

214 BIRNIE AVENUE, SPRINGFIELD, MASS.

U. S. Bonded Warehouses . . . Pool Car Distribution . . . Household and Merchandise facilities . . . Private Siding . . . Our fleet covers Connecticut and Massachusetts daily. Warehouses at Bridgeport and Hartford, Conn. Members: NFWA—AWA—ACW—AVL Agents

SPRINGFIELD, MASS.



J. J. Sullivan The Mover, Inc.

Fireproof Storage

Offices: 385 LIBERTY ST., SPRINGFIELD 1

HOUSEHOLD GOODS STORAGE, Packing,
 Shipping, Pool Car Distribution of All Kinds
 Fleet of Motor Trucks

DETROIT, MICH.



Central Detroit Warehouse

Located in the heart of the wholesale and jobbing district, within a half-mile of all freight terminals. Modern buildings, lowest insurance rate in city.

Warehouse & Terminals Corporation

Wyoming and Brandt Avenues

Modern concrete buildings, fully sprinklered, serving the west side of Detroit and the city of Dearborn. Specializing in heavy and light package merchandise and liquid commodities in bulk. Connected directly with every railroad entering the city.

Central Detroit Warehouse Co.

Fort and Tenth Streets, Detroit 16, Mich.

DETROIT, MICH.

DETROIT STORAGE CO.

Established 56 Years

STORAGE WAREHOUSES ALL OVER DETROIT



Local and Long Distance Removals

Foreign and Domestic Shipping

Main Office

2937 East Grand Boulevard
Detroit 2

Telephone Trinity 2-8222

DETROIT, MICH.

4444 LAWTON AVE.

DETROIT TERMINAL WAREHOUSES, INC.

N.Y.C. R. R. SIDING
LOADING DOCKSPRIVATE OFFICES
DRY STORAGE

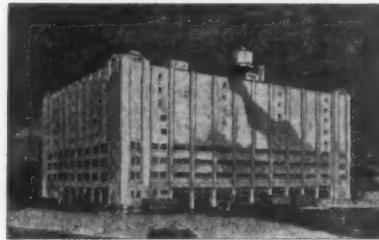
PRIVATE POLICE PROTECTION • MOTORPOWER HANDLING EQUIPMENT

DETROIT, MICH.

GRAND TRUNK WAREHOUSE & COLD STORAGE COMPANY

DETROIT 11, MICH.

Ferry Ave., E. and Grand Trunk Railway



Local, regional and storage-in-transit service, offering every facility known to modern distribution.

New
 Ultra-Modern
 Plant

Trunk Line
 Terminal
 Complete Service

Continent-wide Connections



AMERICAN WAREHOUSEMEN'S ASSOCIATION

DETROIT, MICH.

John F. Ivory Stge. Co., Inc.

MOVING—PACKING—SHIPPING
STORAGE—PRIVATE SIDING

8035 Woodward Ave., Detroit 2, Mich.

DETROIT, MICH.

Henry & Schram Storage & Trucking Company

*"The Warehouse of Service"*MERCHANTISE STORAGE—GENERAL TRUCKING
CAR LOAD DISTRIBUTION

Private Siding on
Wabash—Canadian Pacific—Pennsylvania—Pere Marquette Railways

A.D.T. Aero Automatic Fire Alarm and
A.D.T. Burglary and Fire Protection

"Your Interests Are Always Ours"

1941-63 W. Fort Street

DETROIT 16, MICHIGAN

DETROIT, MICH.

Facing the Busiest Thoroughfare in DETROIT

In this modern fireproof building you can have bright, inexpensive, specially designed offices under the same roof with a complete warehouse and distribution service.

150,000 sq. ft. located on Detroit's busiest thoroughfare. Private siding facilities for 10 cars with free switching from all railroads. Large, enclosed loading dock. Our own trucks make prompt reshipment and city deliveries.

JEFFERSON TERMINAL WAREHOUSE

1900 E. Jefferson Ave.

DETROIT 7, MICHIGAN

years in a fruitless effort to pierce the coast range on a more favorable route through a mythical low pass, convinces all concerned that with the well-known Meseta Central and the valley of El General River as objectives no better route can be found. Shunk, who was in charge of the Inter-continental Railroad surveys in the late 1880's, did not attempt to reach either objective, declaring the latter altogether too difficult even to attempt.

A Mile Up and 1 1/2 Down

The highway over the continental divide between Cartago and San Isidro, about 94 km. in total length, will start at an elevation of about 5000 ft., climb to 10,931 and descend to 2500 ft. at San Isidro, that is, climb a mile up and a mile and a half down.

To have constructed a pioneer road across this area would be about as difficult to build to final width, providing, of course, the final line was to be followed. To have abandoned the final proposed line in favor of one following around the contours would have resulted in a road dangerous in the extreme in view of the sheer rock precipices that occur intermittently throughout the higher altitudes. So through this section, included in the Mills contract, the standard line will be followed with some concession in the proposed standard grades.

Impressive Scenery

When completed, this section will constitute one of the most scenic and

impressive stretches on the entire line from the United States to the Canal. The Atlantic and the Pacific will both be visible from the top at many points, the Pacific over 30 miles away, and the Atlantic over 50.

Owing to the slow start and the continuing difficulties of transportation of equipment, supplies and materials, the original program will not be possible. But the road was constructed either as a pioneer or standard highway across Guatemala, Salvador, Honduras, Nicaragua and Panama in July, and should be through Costa Rica by July of next year. Probably a pilot road, sufficient for the passing of construction equipment will be completed in the Costa Rica section this year.

Following the completion of the pioneer road sections, standard road construction will proceed without interruption. The surface will be widened to six meters and the grade to nine. The profile will be corrected where necessary to conform to the standard specifications of 6 per cent and compensated 7 per cent where necessary. Temporary structures where now introduced will be rebuilt in permanent form and the entire surface finished with a bituminous penetration or surface treatment. The total length on the combined standard and pioneer route from the Suchiate River at the southern Mexican frontier to Balboa basin in the Canal Zone will be 2561 km.

DETROIT, MICH.

AN ASSOCIATED

Member A.W.A.

In
Greater
DETROIT
THE BEST IS
★ U.S. ★

UNITED STATES WAREHOUSE COMPANY
1448 WABASH AVENUE PHONE RANDOLPH 4750
DIVISION OF
UNITED STATES COLD STORAGE CORPORATION
OPERATING
United States Cold Storage Corporation
United States Cold Storage Company
United States Cold Storage Company
United States Warehouse Company
Chicago
Kansas City
Dallas
Detroit

Central American Abaca to U. S.

By 1945 Central America will be supplying the U. S. with 15 to 20 per cent of the abaca (source of Manila hemp) formerly imported from the Philippines, according to a recent report by Leo T. Crowley, FEA head, to Senator Kenneth McKellar, acting chairman, Senate Appropriations Committee.

The Crowley statement covered the subject of strategic materials procurement in other American republics. It reported 40,000 acres of abaca under development in Panama, Guatemala, Costa Rica and Honduras, in an effort to replace losses from the Philippines, formerly the source of our entire supply of this material from which is made hemp.

China Cargo Shipments Have Record Year

The Central African Division, Army Air Force Transport Command, on a "round the clock" schedule recently clicked off a year's record with no fatal accidents. Carrying supply and personnel aid to China from Accra, on the West African Gold Coast, to Karachi, India, a distance twice the span of the U. S. and of a more hazardous nature than encountered in U. S. flights, the ATC division has operated more planes than any other domestic American airline.

MICHIGAN—MINNESOTA

DETROIT, MICH.

Established 1883

RIVERSIDE
STORAGE & CARTAGE CO.

Cass & Congress Sta., Detroit 26
Household Goods and Merchandise Storage
Moving—Packing—Shipping
Personal Service Guaranteed
Members—A.W.A.—N.F.W.A.—Allied Van Lines



DETROIT, MICH.

Members N. F. W. A.

Wolverine Storage Company, Inc.

11850 E. Jefferson Ave., Detroit 14



STORAGE AND MOVING, PACKING
AND SHIPPING

Agent for Allied Van Lines, Inc.



GRAND RAPIDS, MICH.

THE LARGEST COMPLETE WAREHOUSING AND
DISTRIBUTING SERVICE IN GRAND RAPIDS

COLUMBIAN STORAGE & TRANSFER CO.

Approximately 90% of All Commercial Storage and Pool Cars
in Grand Rapids Handled Thru Columbian

Member of
A.W.A.

Represented by
NEW YORK BILLIED DISTRIBUTION INC.
11 WEST 42ND ST. PHON 6-0940 1525 NEWBURY AVE. MICHIGAN

CHICAGO



FIREPROOF STORAGE CO.

430-440 No. Larch St., Lansing 2
Merchandise and Household
Goods Storage

—Modern Fireproof Buildings—
Pool Car Distribution—Private Sidings
P. R. R.
Trucks for Local Deliveries

Member of A.W.A.—May.W.A.



LANSING, MICH.

Agent for Allied Van Lines, Inc.

LANSING STORAGE COMPANY

The only modern fireproof warehouse in
Lansing exclusively for household storage.



MOTHPROOF FUR AND RUG VAULTS

Local and Long Distance Moving
"WE KNOW HOW!"

440 No. Washington Ave., Lansing 30



SAGINAW, MICH.

BRANCH HOUSE SERVICE
... AT WAREHOUSE COST

- It is possible here to secure the same high-grade service you would expect in your own branch warehouse, but at less expense and without worry or trouble.
- Saginaw is a distribution point for Northeastern Michigan. Every merchandise warehouse facility is available at Central-Warehouse Co.
- Merchandise storage, cartage, pool car distribution, daily direct service to all points within 75 miles by responsible carriers.

CENTRAL WAREHOUSE CO.

1840 No. Michigan Avenue

SAGINAW, MICHIGAN



Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

MINNEAPOLIS, MINN.

Kedney WAREHOUSE CO.
617 WASHINGTON AVE., NO.
Minneapolis 1

STORAGE

MERCHANDISE & HOUSEHOLD GOODS

A.W.A.—N.F.W.A.—Minn. N.W.A.

MINNEAPOLIS, MINN.

George La Bella, Pres.

LA BELLE SAFETY STORAGE & MOVING CO.

708 Central Ave.

Minneapolis 14, Minn.

OPERATING AGENTS ALLIED VAN LINES

Fireproof Storage Warehouses.

Large fleet of equipment for local and long
distance moving.



MINNEAPOLIS, MINN.

Member of



MINNEAPOLIS TERMINAL WAREHOUSE CO.

STORAGE — TRUCKING — POOL CAR
DISTRIBUTION

Complete Facilities At The Three Important Centers
Minneapolis Midway St. Paul

MINNEAPOLIS, MINN.

**CENTRAL and
COMPLETE
FACILITIES**

NORTHWESTERN TERMINAL CO.
500 Stinson Blvd. Minneapolis 13

Member: MINNEAPOLIS N. W. A.

Merchandise warehouse completely spring-
erized—State Bonded. Pool cars distributed.

Close to metropolitan Minneapolis and St.
Paul, Northwestern Terminal places at your
disposal 20 trucks, 15 tractors and 50 semi-
trailers—complete motor equipment.

MINNEAPOLIS, MINN.

SECURITY WAREHOUSE COMPANY

Competent and capable merchandise warehousemen

General Offices: 334 N. 1st Street

ROCHESTER, MINN.

Merchandise and Household Goods Storage
Local Pool Car Distribution

Packing—Crating—Bonded Storage
Local and Long Distance Moving

ROCHESTER TRANSFER & STORAGE CO.

10—1st Ave., S. E., 'Phone 4515

Rochester, Minn.

Member N.F.W.A. and Allied Van Lines, Minn. Northwest W.A.



ST. PAUL, MINN.

BALLARD

Storage & Transfer Co.

16 E. Fourth St., St. Paul 1



NFWA



AVL

ST. PAUL, MINN.

A COMPLETE WAREHOUSING SERVICE

Merchandise Storage — Cold Storage

Pool Car Distribution

Industrial Facilities

Situated in the Midway, the center of the Twin City Metropolitan area, the logical warehouse from which the Twin Cities and the Great Northwest can be served from one stock, with utmost speed and economy. No telephone toll charge to either city.

CENTRAL WAREHOUSE COMPANY
739 Pillsbury Avenue

St. Paul 4, Minnesota

Phone: Nester 2851

Represented by DISTRIBUTION SERVICE, INC.
119 E. N. Water St. 2 Broadway
CHICAGO 11 NEW YORK CITY 4 SAN FRANCISCO 7
Phone: Superior 7186 Phone: Bowery Green 9-0868 Phone: Butter 3481

Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

MINNESOTA—MISSOURI

ST. PAUL, MINN.



Agents for Allied Van Lines, Inc.
Member of N.F.W.A.—A.W.A.

Special attention given household effects of your officials and employees moved from or to St. Paul.

HOUSEHOLD GOODS STORAGE MERCHANDISE STORAGE

Complete Branch House Service

FIDELITY STORAGE and TRANSFER CO.
Office & Warehouse: 332 Rosabel Cor. E. 4th, St. Paul 1



ST. PAUL, MINN.

Kedney WAREHOUSE CO.
117 W. University Ave.
St. Paul 3

STORAGE
MERCHANDISE & HOUSEHOLD GOODS

A.W.A.—N.F.W.A.—Minn. N.W.A.

JOPLIN, MO.

SUNFLOWER LINES, INC.

Successors to Tonnes Transfer & Storage Co.
1027-41 Virginian Ave. Joplin, Mo.



Distribution and storage of merchandise.
Fireproof warehouses—Motor van service.
On railroad siding—Lowest insurance rates.

PACKING—STORAGE—SHIPPING

Agent for Greyvan Lines, Inc.



KANSAS CITY, MO.

In Kansas City

it's the A-B-C FIREPROOF WAREHOUSE CO.

1015 E. Eighth St. (6)

Distribution Cars are so handled as to carefully safeguard your own interests and those of your customers.

Three Fireproof Constructed Warehouses
Member of N.F.W.A. Agents Allied Van Lines, Inc.



Operating
Brokers' Warehouse, Security Warehouse, Terminal Warehouse

400,000 sq. ft.
Trackage on
four railroads
Truck docks—
Low insurance

STORAGE
AND
DISTRIBUTION

KANSAS CITY, MO.

Merchandise Storage
Low Insurance Rates
Fireproof Construction
Freight Forwarders
and Distributors
via rail or daily
motor service to
entire Southwest.

MEMBER OF
A.W.A.—A.C.W.
Traffic Club—
Chamber of Commerce

ADAMS
TRANSFER &
ADAMS STORAGE CO.
"Surrounded by the Wholesale District"
UNION TRUCK TERMINALS
228-236 West Fourth St.
Kansas City 6

KANSAS CITY, MO.

Established 1880

CENTRAL STORAGE CO.

Efficient, Complete Merchandise Warehousing Service
Office—1422 ST. LOUIS AVE.
(West 10th Street)

In Center of Wholesale and Freight House District

KANSAS CITY, MO.

"Kansas City's Finest Warehouses"

CROOKS TERMINAL WAREHOUSES, INC.

1104 Union Ave., Kansas City 7

FINANCING
A.D.T. BURGLAR ALARM
LOWEST INSURANCE RATES
COOL ROOM FACILITIES



BEST RAILROAD FACILITIES
IN THE HEART OF THE
FREIGHT HOUSE AND
WHOLESALE DISTRICT

Operating
Brokers' Warehouse, Security Warehouse, Terminal Warehouse

KANSAS CITY, MO.

STORAGE
AND
DISTRIBUTION



Merchandise Warehouses, Inc. ST. LOUIS AVE.
& MULBERRY ST.

Transportation in Distribution

(Continued from page 22)

mendous. The great job that trucks have done for Uncle Sam both at home and on the war fronts is beyond description. The thousands upon thousands of vehicles have fed our war plants to keep them going and to permit the enviable record which production may well boast. Other vehicles have been transporting the finished products to shipping ports and other points of need. Still others have been supplying the essential civilian needs in every city and town in the country. In fact, 54,000 communities in this country are entirely without rail service and must depend 100 per cent on trucks.

Overseas, the problem of supplying the troops has been delegated almost entirely to trucks because the action has taken place either in sections where rail facilities were non-existent or where the railroads were blasted out of use. The job that trucks have done in keeping up with the G.I.s is something that will go down in his-

tory. It has been well said, indeed, that this is a motorized war.

It goes without saying that all forms of transportation should work together, and that we should take advantage of all the lessons we have learned during wartime. In particular, if the various states would remove the barriers to efficient highway transportation in peacetime as they have in wartime, we could be assured that industry would function at its best and that progress could continue unshackled.

In the same way, all industry should eliminate petty squabbles and work together for the common good. It goes without saying that we must get our costs down through efficient methods if we are to have a balanced economy and a volume of business that will assure prosperity. Patriotism is a matter of working together for the good of the country at any time, not just a matter of offering service in time of war.

Warehouse Lease

Columbus Terminal Warehouse Co. has leased four-story brick building, 119 E. Goodale St., Columbus, Ohio, approximately 80,000 sq. ft. of floor space; fireproof with sprinkler sys-

tem, and now being remodeled to make it one of the most modern warehouse buildings in central Ohio. Company also operates warehouses at 55-57 Terminal Way and 416 Dublin Ave. in Columbus. (Kline.)

Maritime Commission Serves Notice

The United States Maritime Commission has issued a notice to all persons furnishing wharfage, dock, warehouse, or other terminal facilities in connection with a common carrier by water, requesting them to file with the Division of Regulation of the Commission, and keep open to public inspection, schedules, tariffs, contracts, and agreements showing the rates, charges, rules, and regulations connected with these operations.

This action by the Commission was taken to ensure the proper administration of the regulatory provisions of the Shipping Act, 1916, and follows the affirmance by the United States Supreme Court (320 U. S. 577) of the jurisdiction of the Commission (Docket No. 555, Practices, etc., of San Francisco Bay Area Terminals, 2 U.S.M.C. 588), over all private, State, and municipally owned terminals. Heretofore, the Commission has found it necessary, in specific instances, to require the filing of terminal tariffs, as in the above-mentioned proceedings.

Named Distributor

Appointment of the E. Keeler Co. as distributor of the Crosley Corp. in the central part of Pennsylvania has been announced by B. T. Roe, manager of distribution of Crosley.

MISSOURI

KANSAS CITY, MO.



Mid-West Terminal Warehouse Co.
2020-24 Walnut St., Kansas City 10

"Right is the mid of Business"

Complete Warehouse Service—Pool Car Distribution—We invite your inquiries.

Owed and operated by the
St. Louis Terminal Warehouse Co., St. Louis
See our ad.

KANSAS CITY, MO.

Established 1903

POOL CAR TERMINAL—Spacious, enclosed, sheltered loading Dock, facing wide Street in Wholesale and Shipping District on B&O-Alton Railroad siding.

MERCHANDISE STORAGE — GENERAL CARTAGE
Sprinklered—A.D.T.—Fleet modern Equipment

THE ONLY WAY TRANSFER & WAREHOUSE CO.
1400-10 St. Louis Avenue, Kansas City 7

ST. LOUIS, MO.

AALCO MOVING & STORAGE CO.

3519 Page Boulevard, St. Louis 6

Nationwide Movers of Household Goods

GENERAL OFFICES

3519 Page Boulevard

Agents for North American Van Lines

ST. LOUIS, MO.



for
conscientious
handling of
fine furniture

Ben Langan

Storage & Moving
5201 DELMAR, ST. LOUIS 8

Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

USE LONG SERVICE from shipper to market

ST. LOUIS 49TH STATE

COMPACT

ST. LOUIS, MO.

RUTGER STREET
WAREHOUSE, INC.

MAIN & RUTGER STS., ST. LOUIS 4

A.D.T. Burglar & Sprinkler Alarms.
200,000 Sq. Feet of Service
BONDED

Low Insurance

Merchandise Storage and
Distribution.

Track Connections with All
Rail and River Lines.

Offices:
New York
Murray Hill 9-7645
Chicago
Randolph 4458



ST. LOUIS, MO.

In the Heart
of St. Louis
Industrial and
Wholesale Districts



Compare the FACTS of our service point
by point with those of any other warehouse
before you buy warehousing service in St.
Louis.

Warehouse facilities, switching, location,
protection, special space, cleanliness, switch-
board, order dept., stock control, and a
dozen other features are the reasons for our
reputation and growth - - -

"Service That Excels"
Send for complete folder

ST. LOUIS TERMINAL WAREHOUSE CO.



GENERAL OFFICES
826 CLARK AVE.
ST. LOUIS 2, MO.
MAIN 4-827

NEW YORK OFFICE
250 PARK AVENUE (17)
PLAZA 3-1235

CHICAGO OFFICE
53 W. JACKSON (4)
HARRISON 1488

Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

ST. LOUIS, MO.



SLOAN'S
MOVING AND STORAGE CO.

5619 DELMAR BLVD., ST. LOUIS 12
70,000 Sq. Ft. of MODERN floor space. Fireproof,
sprinklered, heated. Every load fully insured. Com-
plete expert service "To and from Everywhere."
BONDED. Exclusive agents United Van Lines, Inc.

ST. LOUIS, MO.

Tyler Warehouse & Cold Storage Co.
Merchandise and Cold Storage

Unexcelled service at lower rates

Pool Car Distribution and Forwarding

200 Dickson St.

St. Louis 6, Mo.

Member of A.W.A.—Mo.W.A.—St.L.M.W.A.



Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

The Air Brake Celebrates Its 75th Anniversary

(Continued from page 24)

to reduce air pressure through the train pipe to the rear cars which, still unbraked, bumped into the braked cars ahead.

The answer was the quick-action brake, the continuing development of which is illustrated in today's 150-car and longer trains in which emergency braking action is reliably transmitted at 930 feet per second by purely pneumatic means.

In Other Fields

Coincident with the development of brakes for the railroads, research has also provided air brakes for street railway cars, subway trains, high speed metropolitan transit lines and automotive vehicles.

The science of pneumatics was almost 75 years old when the marine industry sought its help.

Engineers, mindful of the manner in which air brake devices were serving in other transportation fields, have been able to create almost overnight a war-demanded type of pneumatic control that can reverse a ship's direction in a matter of seconds and give it a special escape from torpedoes, mines or falling bombs.

This has made possible the direct control of the vessel's movements from the bridge. By means of a small lever it put complete control in charge of the pilot. It placed all operations in the entire cycle of engine maneuvering in the handle of that lever.

When the pneumatic system was installed and put to test, it performed this marvel on a ship going full speed forward: with finger-tip pressure, the pilot cut off engine fuel, braked the engines, shifted gears, released the propeller brake, fed in fuel, re-started the engine and sent the propeller shaft into reverse—in a few seconds!

The pneumatic system not only cuts time lag 90 per cent; all operations are foolproof against accidental change in sequence. Everything is synchronized and automatic.

Signaling Systems

Signaling systems have played a vital role in the development of railway transportation. Until a quarter of a century ago they consisted mainly of manual and automatic block signals, interlockings and highway-railroad grade crossing warning de-

vices. The primary function of the systems was to increase the safety of train operations.

In more recent years, the need to expedite train operations safely while at the same time reducing operating costs has stimulated a continuing flow of signaling devices which are ingenious both in conception and in performance. Union Switch & Signal Co., which is a part of Westinghouse Air Brake Co., has pioneered and introduced these innovations and improvements. As might be expected, many of them utilize compressed air to perform their various functions.

Among the more striking developments have been automatic block signaling, interlocking systems, automatic train control, coded track circuit control, continuous cab signaling, centralized traffic control, car retarders and the very new inductive train communication system which permits two-way voice communication between trains on the same or adjacent tracks, between vehicles in the same train, and between trains and stations.

Men and Organization

The story of an invention should include some mention of the company that manufactures the product and the men in its offices and shops.

George Westinghouse, the founder, was president until he died in 1914. He left his mark on many industries and the honors conferred upon him

SEDLIA, MO.

Owner Manager Responsibility

MIDDLETON STORAGE

118 N. Lamine St. Phone 946 Sedalia, Missouri
Household Goods and Commercial Storing, Moving, Crating, Packing and Shipping
Local and Long Distance Hauling
Pool Car Distribution Private Switch



SPRINGFIELD, MO.

GENERAL WAREHOUSE CORPORATION

601 N. National Ave., Springfield, Missouri
Phone 236



Merchandise and Household Goods
Storage and Distribution
100,000 square feet, sprinklered
Pool Car Distribution
Member A.W.A.—N.F.W.A.—M.W.A.



BILLINGS, MONT.

Established 1904

BRUCE COOK TRANSFER & STORAGE COMPANY

Complete Facilities for Storage of Merchandise and Household Goods



Stop in Transit and Pool Car Distribution
Warehousemen's Terminal for Pool Truck Lines
Private Siding
Agents for Aera Mayflower Transit Company
Member Mayflower Warehousemen's Association
P. O. Box 1382 — 2801 Minnesota Avenue
Billings, Montana

HASTINGS, NEBR.

1876

1944

BORLEY'S

Storage & Transfer Co., Inc.

Pool Car Distribution

FIREPROOF BONDED
STORED OR SHIPPED



LINCOLN, NEBR.

1889 55 Years of Continuous Service 1944

Merchandise and Household Storage—Pool Car Distribution
We operate Thirty Trunk Lines have connections to all points in the State.
Our buildings are clean, both Fire and Non-Fireproof, located on the lines
of the C. B. & Q.—Mo. Pacific and Union Pacific with all other lines entering
either city, absorbing switching.

We are Bonded by the State—Our Rates are reasonable. We solicit your business
and guarantee satisfaction. Investigation invited.

SULLIVANS

Transfer & Storage Co.
Lincoln 8, Nebr.
301 N. 8th Street

Grand Island Storage Co.
Grand Island, Nebr.
311 W. 4th Street

OMAHA, NEB.

FORD

STORAGE & MOVING COMPANY

Omaha 2, Nebraska

1024 Dodge Street
Omaha's most modern, centrally located warehouse. Fireproof construction—Fully
sprinklered—Low Insurance. Sidings on I.C. R.R. and U.P. R.R. U. S. Customs
Bond. General Merchandise—Cooler Storage—Household Goods Storage. Also oper-
ates modern facilities in Council Bluffs, Iowa. Our own fleet of trucks for quick
deliveries.

Member of N.F.W.A. and A.W.A.

Represented by
NEW YORK
BELLIED DISTRIBUTION INC
11 WEST 42ND ST. NEW YORK 6-0066

CHICAGO
1525 NEWBERRY AVE., CHICAGO 11

OMAHA, NEBR.

GORDON

Storage
Warehouses, Inc.
Merchandise and Household Goods

Four modern, sprinklered warehouses, located on trackage. We handle pool car
merchandise and household goods. Trucking service. Let us act as your
Omaha Branch.

Main Office, 702-12 So. 10th St., OMAHA 8, NEBR.
Member: A.W.A.—N.F.W.A. Agents for Allied Van Lines, Inc.

Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

OMAHA, NEB.

802-812 Leavenworth Street, Omaha 8

MOREWOOD WAREHOUSE

Exclusive Merchandise

Complete Distribution—Storage Facilities

MANCHESTER, N. H.

Make Our Warehouse Your Branch Office for Complete Service in New Hampshire

NASHUA, N. H. McLANE & TAYLOR

CONCORD, N. H. Bonded Storage Warehouses

Offices 624 Willow St.

General Merchandise Storage & Distribution, Household Goods, Storage, Cold Storage, Unexcelled Facilities. Pool Car Distribution

Direct R. R. Siding, Boston & Maine R. R.

JERSEY CITY, N.J.

On the Hudson River Directly Opposite New York City

HARBORSIDE WAREHOUSE COMPANY, Inc.

Tel. Bergen 4-6000 Thirty-four Exchange Place

R. B. M. Burke, V.P.

Established 1933

Executive and Sales Office: 66 Hudson St.

New York 13, N. Y.

Phone: Barclay 7-6600

John J. Mahoney, T. M.

FACILITIES—3 units—fireproof, brick, and concrete. Private siding, Penna. R.R. connecting with all roads entering city. Merchandise Stgs.—mfg. and office space 1,650,000 sq ft; sprinkler; automatic fire alarm; ins. rate .098; rail siding—20-car capacity; platform—40 trucks. Cold Stgs.—coolers 1,808,000 cu. ft.; freezers 1,182,000 cu. ft.—total 2,790,000 cu. ft., convertible; automatic fire alarm; ins. rate .098; bins; refrigerated rooms; temp. range 0 to 50° F.; cooler room ventilation; humidity control; 20-truck platform; rail siding 16-car capacity. Water Dock Facilities—waterfront dock 600 ft.; draft min. 21 ft.; also pier berth 600 ft.; bulkhead draft 25-30 ft.

SERVICE FEATURES—Free Lighterage, pool car distribution. Rental of office space. Storage-in-transit. All perishable products accepted for cold storage. Free switching on certain perishable products. Bonded space available. American Export Line steamers dock at piers adjacent to warehouse. Consign rail shipments to storer c/o Harborside Warehouse Co., Jersey City. Pennsylvania R.R., Henderson Street Station D1'y.

ASNS.—A.W.A. (Cold Sigr. Div.); W. A. Port of N. Y.; Mar. Assoc.; N. Y. Mar. Exch.; Com. & Ind. Assoc. N. Y.; Jersey City C. of C.

ELIZABETH, N. J.

Over Sixty Years of Honorable Service

ENGEL BROTHERS, INC.

HOUSEHOLD GOODS STORAGE

1179-81 EAST GRAND STREET, ELIZABETH 4

MODERN FLEET OF VANS FOR LOCAL AND LONG DISTANCE MOVING

NEWARK, N. J.

MEMBER: N.J.F.W.A. and N.F.W.A.

PACKING! MOVING! STORAGE!

dependable since 1860

KNICKERBOCKER

STORAGE WAREHOUSE COMPANY

96 to 106 ARLINGTON STREET 74 to 76 SHIPMAN STREET
Wm. R. Mulligan, Pres. James E. Mulligan, Secy and Mgr.

NEWARK, N. J.

Member of N.J.M.W.A.

Newark Central Warehouse Co.

General Offices: 110 Edison Place, Newark 5

In the heart of Newark—serving New Jersey and the entire Metropolitan Area. Sprinklered—low insurance rates. Central R.R. of N. J. 20 car siding, 25 motor truck delivery platform. Motor Freight Terminal. Merchandise automobile storage—branch office facilities.

POOL CAR DISTRIBUTION

a Representative of
NEW YORK ALLIED DISTRIBUTION INC. CHICAGO
11 WEST 42ND ST. PHONE 8-0967 1833 NEWBERRY AVE. INCHESTER

PERTH AMBOY, N.J.

NEW YORK CITY

HARRIS WAREHOUSES, INC.

RECTOR ST., PERTH AMBOY

Gen. Offices—246 South St., N. Y. C.

Est. 1900

Merchandise Storage and Distribution
Dock and Pier Facilities within the
Free Lighterage Limits**Air Cargo Potentials
In Latin America**

(Continued from page 26)

Imports are orchids, tonka beans, and reptile skins."

Argentina . . .

"A substantial part of trade between United States and Argentina usually consists of commodities needed to supplement inadequate domestic production," according to the Department's release on Argentina-U. S. air cargo potentialities, since "the economy of Argentina is similar in some respects to that of the United States. Argentina is located largely in the temperate zone, normally exports huge quantities of surplus agricultural and pastoral products, and boasts a high degree of industrial development compared with other Latin American republics . . .

"United States trade with Argentina in 1939 totaled \$129,169,871, of which United States exports (domestic) were valued at \$70,621,123 and imports for consumption, \$58,548,748. This produced a so-called favorable balance of trade for the United States. In the case of commodities selected as possessing air-cargo potentialities, the balance was even more in favor of the United States, with exports totaling \$9,978,776 in

value while imports were valued at only \$2,468,123 . . .

"The United States' chief imports from Argentina have been flaxseed, wool, hides and skins, tanning extract, and canned meat. On the other hand, while the United States exports to Argentina important amounts of such supplementary commodities as crude petroleum, petroleum products, lumber and wood products, the leading exports have been manufactured goods, especially machinery, vehicles and parts, either not produced at all or in negligible quantities in Argentina."

Brazil . . .

"The Annual Foreign Trade Statistics for 1939 published by the Bureau of Foreign and Domestic Commerce indicate that 1,358 commodities were exported from the United States to Brazil with a total value of \$80,345,195. Included in these classes were 476 with a total value of \$10,991,782 which had a value of 50c. a lb. or over or were either perishable, fragile, or possessing a style factor. The 476 classes consist of 437 which have a value of 50c. a lb. or over, while the remainder, comprising commodities valued under 50c. per lb. consisted of 15 perishable commodities, 21 fragile

Bendix Appointed

Appointed as official operating agency for the United States Army Air Forces, the Eclipse Machine Division of Bendix Aviation Corp. will take over operation of the United States Navy-Remington-Rand "N" plant at Elmira, N. Y., to expand mass production of vital new equipment for the B-29 Super-Fortresses.

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

D and W, December, 1944—89

commodities, and 3 commodities with a style factor. The total weight of the 476 commodities selected as constituting air cargo potentials amounted to 13,575,373 lb. with an average value per lb. of 90c.

"A similar analysis of imports in 1939 from Brazil to the United States indicates that there were 255 commodities imported of which 47 were

selected as possessing potentials for air shipment. A breakdown of these 47 shows that 40 were valued at 50c. a lb. or over while 7 commodities valued at less than 50c. per lb. were perishable or fragile. The 47 selected commodities had a value of \$3,406,212 or 3.2 per cent of the value of all imports from Brazil. The total weight of the selected commodities amounted to 1,731,335 lb. or \$2 per lb."

rectors of Royal Dutch Netherlands Indies Airways, pointed out.

"By utilizing the past experience of international freight forwarders and European air companies, it should be possible to devise further methods of coordination between such agencies and express companies, motor carriers and airlines for dealing with solicitation or pick-up and delivery services.

"Warehouses should come in for use with small stocks of numerous products to be kept within ready access of retailers and to be quickly replenished by air cargo transport.

"Air carriers, regardless of nationality will find coordination valuable with not only other groups, but among themselves."

Kinsey N. Merritt, general manager, public relations, Air Express Division, Railway Express Agency, said that "Air express tariffs apply between upward of 375 cities . . . connected by approximately 45,000 route-miles of airlines.

"Coordinating air and rail services gives this traffic the benefit of air speed for long haul which averages about 1,000 miles and of fast passenger train speed for rail haul."

John V. Lawrence, managing director, American Trucking Assns. urged greater air-highway coordination between independent motor carriers on the one hand and the airlines on the other. He also advocated maintenance of independent agencies in the transportation field.

Coordination of Major Trade Groups For Better Use of Air Cargo Urged

(Continued from page 32)

"There are two basic types of financing," Mr. Strong pointed out. "There is the secured loan and the unsecured loan; that is, a bank will either advance money on a borrower's I.O.U. or the borrower will lodge with the bank collateral to secure the loan. Banks consider generally the merchandise as security for the transaction. The bill of lading in ocean and land traffic gives the consignee or the holder of the instrument title to the goods.

"The airwaybills presently used by the air carriers," Mr. Strong continued, "do not clearly define in whom title to the goods is vested. The Committee of Uniformity in Documents of the Bankers Assn. for Foreign Trade has recommended:

1. Coordinated effort to devise a uniform negotiable or non-negotiable air waybill suitable for bank financing.

2. Comprehensive uniform laws with regard to international air cargo shipments and the documents relating to such shipments.

3. Insurance offered by airlines to cover both ordinary and war risks unless arrangement is made for an interim settlement when it is difficult to determine cause of the loss.

4. Pending adoption of uniform airwaybill, operating airline to revise their airwaybills in line with principles which will make for bank financing on basis of them.

"Coordination of services of air carrier with those of other groups will make for best development of air commerce," L. F. Bouman, U. S. representative, Royal Dutch Airlines, and secretary to the board of di-

ALBUQUERQUE, N. M.

SPRINGER TRANSFER COMPANY ALBUQUERQUE

Operating the Only Fireproof Storage Warehouse
in New Mexico

Complete and efficient service in distribution, delivery
or storage of general merchandise or furniture.
Member of N.F.W.A.—A.W.A.

ALBANY, N. Y.

Albany Terminal & Security Warehouse Co., Inc.

Main office: 1 Dean Street, Albany 1

Storage for every need. Pool cars a specialty. Available storage space for rent if desired. Direct track connections with all railroads running into Albany.

Member American Warehousemen's Association

ALBANY, N. Y.



CENTRAL WAREHOUSE CORPORATION

Colonia and Montgomery Sts., Albany 1, N. Y.
Telephone 3-4101

ALBANY, N. Y.

JOHN VOGEL, Inc.

STORAGE WAREHOUSES

OFFICES, 11 PRUYN ST., ALBANY 7
HOUSEHOLD GOODS — STORAGE AND SHIPPING
FLEET OF MOTOR TRUCKS FOR DISTRIBUTION OF ALL KINDS
POOL CAR DISTRIBUTION OF MERCHANDISE
YOUR ALBANY SHIPMENTS CAREFULLY HANDLED
Collections promptly remitted

BROOKLYN, N. Y.

EMPIRE STATE WAREHOUSES COMPANY ABSOLUTELY FIREPROOF WAREHOUSES

GENERAL MERCHANDISE STORAGE

Specializing in Food Products
Offices: 390-398 Nostrand Avenue, Brooklyn 16, N. Y.
10 Giant Floors. Modern Loading and Unloading Facilities.

BUFFALO, N. Y.

GENERAL MERCHANDISE STORAGE—DISTRIBUTION

SIX
RAIL — LAKE — CANAL TERMINALS
ERIE — NYC — BUFFALO CREEK R. R.
HEATED SPACE — OFFICES — MANUFACTURING

Eastern
Representative
Interlake Terminals, Inc.
271 Madison Ave.
New York 16, New York



Western
Representative
American Chain of
Warehouses, Inc.
53 West Jackson Boulevard
Chicago 4, Illinois

BUFFALO MERCHANDISE WAREHOUSES, INC.
GENERAL OFFICES
1200 NIAGARA STREET BUFFALO 13, NEW YORK

BUFFALO 4, N. Y.

Economical Storage and Shipping

KEYSTONE WAREHOUSE CO.

SENECA AND HAMBURG STREETS, BUFFALO, N. Y.

Where all traffic arteries converge. Modern building. Low insurance rates. Direct track connections with Penn. R.R., N. Y. Central and switching arrangements with all lines into Buffalo. Capacity 20 cars daily. Pool car distribution.



BUFFALO, N. Y.

Knowlton Warehouse Co.

50 Mississippi Street, Buffalo 3, N. Y.

POOL CAR DISTRIBUTION
MERCANDISE STORAGE
PRIVATE SIDING

BUFFALO, N. Y.

Let us care for your needs in Buffalo

LARKIN WAREHOUSE INC.

189 VAN RENSSELAER ST., BUFFALO 10

Specializes in handling pool cars Lowest insurance Stores autos and
No cartage on railroad shipments rates general merchandise

GOVERNMENT BONDED WAREHOUSE

BUFFALO, N. Y.



LEONARD WAREHOUSES

Offices—163 Georgia St., Buffalo 1

Household Furniture—Storage and Removals—
Local, Long Distance — Special Storage and
Handling of Electrical Appliances for Merchandising Purposes

Member
B.W.A.—
Mayflower
W.A.

BUFFALO, N. Y.

Salesminded

THE MARKET TERMINAL WAREHOUSE

Schoellkopf & Co., Inc.

102 Perry St., Buffalo 4

BUFFALO, N. Y.

GENERAL MERCHANDISE—COLD STORAGE
WAREHOUSE

Cargo-Handling
Rail-Lake and Barge
Terminal
96 Car Track
1500 Feet Private
Dock



Financing—
Distribution
Auto Dealers
Warehousing
Service
Office and
Factory Space

TERMINALS & TRANSPORTATION
CORPORATION

275 FUHRMANN BLVD. BUFFALO 3, N. Y.

BUFFALO, N. Y.

WILSON WAREHOUSE CO.

Gen. Offices: 290 Larkin St., Buffalo 10

General Merchandise Storage and Pool Car Distribution

Fireproof Buildings
Low Insurance rate.

Represented by
NEW YORK ALLIED DISTRIBUTION INC. CHICAGO
10 WEST 17TH ST. PENN 6-0566 1525 NEWBERRY AVE. MOH 5531

ELMIRA, N. Y.

A. C. RICE STORAGE CORP.

2—WAREHOUSES—2

MERCANDISE—HOUSEHOLD GOODS

Pool Cars—Truck and Van Service

MEMBER

AWA—N.F.W.A.—ALLIED VAN LINES



FLUSHING, L. I., N. Y.

Established 1885

Flushing Storage Warehouse Company

135-28 39th Avenue, Flushing, N. Y.

Fireproof Warehouses



Moving, Packing, Storing and Shipping of Household Goods and Office
Equipment. 10 blocks from L. I. Railroad Corona Freight Station. Serving
Jackson Heights, Elmhurst, Corona, Whitestone, College Point, Bay-
side, Douglaston, Great Neck, Little Neck, Port Washington, Manhasset,
Hempstead, Garden City.

Members of the A.V.L.—N.F.W.A.—N.Y.F.W.A.—N.Y.S.W.A.

HEMPSTEAD, L. I.

HARRY W. WASTIE—Vice-Pres. & Gen. Mgr.

HEMPSTEAD STORAGE CORP.

GENERAL OFFICES, 237 MAIN STREET

Branch Warehouse No. 2—209 Nassau Road, Roosevelt, L. I.

FIREPROOF STORAGE WAREHOUSES

For household goods, merchandise, Pool car distribution.

Storage for furs, clothing, etc.

Local and Long Distance moving. Serving all of

Long Island

Member of N.F.W.A.—N.Y.F.W.A.—N.Y.S.W.A.—

L.I.M.S.A. Agents for Allied Van Lines, Inc.



ITHACA, N. Y.

LAWRENCE H. SCOTT

STUDENT TRANSFER

FREIGHT HANDLING CAR UNLOADING CRATING
PACKING MOVING STORAGE

Located between barge canal and RR. siding. Served by L.V.R.R. and D.L. &
W.R.R. Dock on barge canal. Pick-up and delivery freight services. 4-10
Saugen stiff-legged derrick ready for navigation season 1944.

704 WEST BUFFALO ST.

DIAL 9595

JAMESTOWN, N. Y.

H. E. FIELD, President FRANK H. FIELD, Mgr.



WILLIAM F. ENDRESS, INC.

66 Foote Ave., Jamestown, N. Y.

MERCANDISE STORAGE • COLD STORAGE

Specializing: Cream, Frozen Fruits, Vegetables, Meats, Etc.
4500 Sq. Ft. Merchandise Storage Space, 85,000 Cu. Ft.
of frozen space, 50,000 cu. ft. of cooler space. Building
Truck Dock, Fork Lift, Fork Lifts, Tractor, 10-ton
Truck Weigh Scale. Members Nat. Assn. Refrigeration
Warehouses, N. Y. State Assn. Refrig. Whsemen.



KEW GARDENS, L. I., N. Y.

Telephone, Republic 9-1400

Kew Gardens Storage Warehouse, Inc.

Motor Vans, Packing, Shipping

Fireproof Storage Warehouse

9330 Van Wyck Blvd. at Atlantic Ave.
Richmond Hill, N. Y.

NEW ROCHELLE, N. Y.

Moving, Packing, Storing, Shipping



O'Brien's Fireproof Storage Warehouse, Inc.

Packers and Shippers of Fine Furniture
and Works of Art

Also Serving

New Rochelle, Pelham, Larchmont, Mamaroneck, White
Plains, Scarsdale, Hartsdale. Send B/L to us at
New Rochelle.

NEW YORK, N. Y.

KAY MOVING SERVICE, INC.

2464 Amsterdam Ave., New York City 33

Household Goods Storage

2 Warehouses, brick and concrete construction

Pool Car Distribution — Commercial — Industrial and

Long Distance Moving

Member of N.Y.S.W.A.—U.N.Y.W.A.

NEW YORK

NEW YORK, N. Y.

CHELSEA FIREPROOF STORAGE WAREHOUSES, INC.

We specialize in storage and transfer of Household Goods. Pool cars distributed. Our warehouses, brick and steel construction, offer highest degree of safety. Trucks, trailer, tractor and lift van. Consign via all R.R.'s sta. New York. For Mt. Vernon, consign via N.Y.C.-N.Y.N.H&H sta. Mount Vernon.

N.F.W.A. — N.Y.F.W.A. — N.Y.S.M.T. — M.&W.A.G.N.Y.

Main Office—426-438 West 26th St., New York City 1

N. Y. C., East Side—28 Second Ave. Larchmont—111 Boston Post Rd. Mount Vernon—27-33 So. Sixth Ave. Bronxville—100 Pondfield Rd.



Member NATIONAL FURNITURE WAREHOUSEMEN'S ASSN.

Agent ALLIED VAN LINES, INC.

NEW YORK, N. Y.

SERVING THE NEW YORK MARKET

There is no problem in Warehousing and Distribution which we cannot work out satisfactorily with the shipper. We have advantages in location and in equipment which enables this company alone to do certain things which cannot be done elsewhere.

We invite your correspondence on any or all features of our Warehousing—Distribution—Trucking Service—Field Warehousing.

Independent Warehouses, Inc.

General Offices: 415-427 Greenwich St., New York 13

* Represented by 

NEW YORK 11 WEST 42ND ST. PENN. 6-0967

ALLIED DISTRIBUTION INC.

CHICAGO 1525 NEWBERRY AVE. MON. 5531

NEW YORK, N. Y.

KINDERMANN FIREPROOF WAREHOUSES

1360-70 Webster Avenue, New York 56

Conveniently located for shipments by rail to Manhattan, Bronx and Westchester Counties. Members National and New York Furniture Warehousemen's Associations.

Agents for Allied Van Lines
Telephone—Jerome 7-0164
GEORGE KINDERMANN, President



NEW YORK, N. Y.

SERVICE—EFFICIENCY—CLEANLINESS

L. & F. STORES, Inc.

GENERAL STORAGE WAREHOUSES
15-17-19 WORTH ST., NEW YORK 13

Merchandise Distribution

LOUIS MAURO

Bonded Truckmen and Forwarders

Phone WALKER 5-9253

NEW YORK, N. Y.

(Pe. 6-8966—7-8)

T. I. McCORMACK TRUCKING COMPANY, INC.

261 ELEVENTH AVENUE

NEW YORK 1, N. Y.

At the Hub of the Metropolitan area

Easily accessible from all points. Railroad siding connecting with New York Central, Erie, and Lehigh Valley Railroads. Storage, Carload Distribution, Trucking, Tank Trucking, Tank Car Servicing.

NEW YORK, N. Y.

THE NATIONAL COLD STORAGE CO., Inc.

Operating Warehouses for Storage of Perishable Food Products

DISTRIBUTION FACILITIES—BONDED AND FREE

Brooklyn Warehouse Adjacent to Pier and Wharf Accommodations

BROOKLYN, 66 Furman St. (2) JERSEY CITY, 178 Ninth St. (2)
Fulton Terminal—N. Y. Dock Railway Erie Railroad—Storage-In-Transit

General Offices: 60 HUDSON ST., NEW YORK 13, Rector 2-6590

NEW YORK, N. Y.

CAPITAL AND SURPLUS
\$5,600,000

ESTABLISHED
1882

GENERAL MERCHANDISE STORAGE

EASY ACCESSIBILITY QUICK HANDLING
EXCELLENT LOADING FACILITIES NEW YORK'S LARGEST TRUCK SCALE
TWO MODERN FIREPROOF WAREHOUSES
SPRINKLED SECTIONS LOW INSURANCE RATES

The Manhattan STORAGE & WAREHOUSE CO.

Member NATIONAL FURNITURE WAREHOUSEMEN'S ASSN.
Agent ALLIED VAN LINES, INC.

NEW YORK, N. Y.

Storage, Distribution and Freight Forwarding
From an Ultra-Modern Free and Bonded
Warehouse.

IDEALLY LOCATED
IN THE VERY CENTER OF NEW YORK CITY

Adjacent to All Piers, Jobbing Centers
and The Holland and Lincoln Tunnels
Unusual facilities and unlimited experience in forward-
ing and transportation. Motor truck service furnished
when required, both local and long distance. Lehigh
Valley R.R. siding—12 car capacity—in the building.
Prompt handling—domestic or foreign shipments.

MIDTOWN WAREHOUSE, INC.

Starrett Lehigh Bldg.

601 West 26th St., New York 1

Represented by Associated Warehouses, Inc.—New York City and Chicago

NEW YORK, N. Y.

NEW YORK DOCK CO.

Executive Offices—44 WHITEHALL ST., NEW YORK 4

STORAGE—PIERS—WHARVES
MANUFACTURING SPACE
RAILROAD CONNECTIONS

Licensed by Cocoa, Cotton, Coffee and Sugar,
Metal and Rubber Exchanges

Member: A.W.A.—W.A.P.N.Y.—N.Y.S.W.A.—N.Y.W.W.T.

NEW YORK, N. Y.

PORT WAREHOUSES, INC.

41/47 Vestry St. Tel. WA 5-3077-78 54/58 Laight St.

U. S. BONDED AND FREE WAREHOUSES
ALSO TEA BOND

In the heart of the Canned and Bag Goods District
of the Port of New York
Two Fumigation Chambers

NEW YORK, N. Y.

SANTINI BROS., INC.

Serving Greater New York and All Points in
Westchester County

MOVERS—PACKERS—SHIPPERS

General Offices: 1405-11 Jerome Ave.

New York City 32

Tel.: Jerome 6-8000 Five Fireproof Warehouses

3,000,000 Cubic Feet — Pool Car Distribution

NEW YORK, N. Y.

130,000 Sq. Ft. Fireproof Storage

SHEPARD WAREHOUSES INC.

DAILY DISTRIBUTION SERVICE TO
ALL POINTS RADIUS 35 MILES

667 Washington St.

New York City 14

Air Cargo Rates . . .

(Continued from page 36)

tion; largely because trucks and drivers could be more effectively utilized, taking into consideration such factors as the distance of airports from city business areas; the number of stops per mile; the number of shipments per stop; and the unequal number of incoming and outgoing shipments.

It is to be hoped that no airline will go into the trucking business, just as it is to be hoped that no motor carrier will go into the air to carry cargo. On less-plane load lots it is to be hoped that the rate will cover pick-up and delivery for all shipments on a scheduled basis, not a hit or miss basis such as would be involved in permitting receivers to call for their shipments at airports or downtown consolidation stations, or which might develop should shippers try to deliver their own outgoing traffic to the same points.

Owens-Illinois Purchase

Owens-Illinois Glass Co., Toledo, has purchased the half-interest in Owens Staple-Tied Brush Co. formerly owned by Toledo Automatic Brush Machine Co. Although now under complete ownership of the glass company, Owens Staple-Tied Brush Co. will continue to operate as a separate unit. (Kline)

life and not a return to babbitt bearings.

Expect sleeveless and sleeved engines, Mr. Cass predicted, unless some new development would justify general use of sleeved engines.

Supercharging as used in aircraft engines, in motor-freight trucks will depend first on developing successfully a supercharger within a reasonable price range. Aircraft experience here in developing superchargers at a proper price "means exactly nothing" to the trucking industry. Further, supercharger maintenance must be carefully studied.

Packless-type water pumps will be continued, even though changes requiring additional pressure on the sealing of this design may be made in the cooling system.

Pressure cooling will be considered seriously because (1) more compact designs, (2) reduced cost, (3) reduced weight is needed. Badly needed is a foolproof device so the uninformed can't remove the radiator filling cap when there is pressure in the system.

Cooling systems of the by-pass type and thermostats which will take the wear and tear more successfully are practical possibilities and operators will have better assurance of more

stable engine temperatures regardless of kind of operation.

Leading thought is to synchronize transmissions in postwar trucks. Because excellent drivers are the exception, synchronization may increase over-all life of the transmission. The synchronizers will be made heavier so they will stand up and thus their cost will be increased.

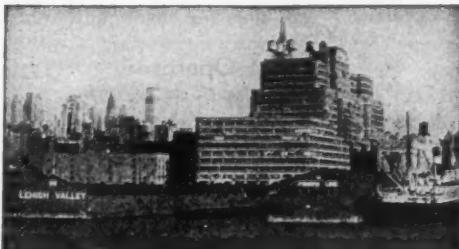
The torque converter, automatic transmission, fluid clutches will not enter the highway picture for many years, it was said. Their use in long-distance trucking may depend greatly on development of super-highways.

If some automatic gear-changing setup is instituted, Mr. Cass said, it will counter our better judgment against using this complicated control. Fluid devices for off-the-road service offers distinct advantages, with 80,000-100,000 lb. (gross wt.) trucks.

Brakes will be increased in size, speeded up in application, and use of hydraulic-operated brakes may be extended easily to gross weight ranges. Unquestionably, there will be a "mixture" of axles. Hypoid gears will be considered, although problems here will make designs conservative.

Re-use of light-weight metals: Don't expect much use of aluminum in early

STARRETT-LEHIGH BUILDING



Outstanding as its dominance over New York's West Side midtown skyline, the STARRETT-LEHIGH BUILDING offers the manufacturer and distributor superior advantages:

- Lehigh Valley R. R. freight terminal on street level; elevators direct to rail yard platform
- Truck elevators to all floors, affording street floor facilities throughout
- Floor areas, 53,000 to 124,000 sq. ft. Smaller units may be leased
- High safety standards—low insurance rates
- Live steam for manufacturing purposes
- Fast passenger elevators; restaurant; barber shop

INVESTIGATE — learn what satisfied, nationally-known occupants are doing at the

Starrett-Lehigh Building

West 26th—West 27th Sts.—11th to 13th Avenues

D. R. CROTSLEY, Manager, 601 West 26th Street
Telephone CHICKering 4-5520

NEW YORK, N. Y.

UNITED SECURITY ASSOC. WAREHOUSES, INC. 243 W. 60 St.—N. Y. C. 23

Circle 7-3191

Specializing in:

HOUSEHOLD GOODS

Storage • Distribution • Trucking • Packing
Foreign Lift-Van Service

OSWEGO, N. Y.

OSWEGO NETHERLAND CO., INC.

ESTABLISHED 1918

Modern up to the minute DRY, COLD and Sharp Freezer Facilities with ventilation and humidity control. Temperature Range for COLD and Sharp Freezer Facilities is to 35° above. Storage-in-transit privileges.

All Fireproof buildings—Very low insurance rates. No car private siding—Free switching—U. S. Warehouse Act Bonded. Member of N.Y.S.R.—A.W.A.

H. B. Lasky, Pres. and Mgr.

ROCHESTER, N. Y.

GEORGE M. CLANCY CARTING CO., INC.

Storage Warehouse

Main St., East at Circle St., Rochester 7

General Merchandise Storage—Distribution

Pool Cars Distributed—Rushipped

U. S. Customs Bonded—Storage—Drayage

Household Goods Moved—Stored—Shipped

Direct R.R. Siding N. Y. Central is the Center of Rochester

SCHENECTADY, N. Y.

Schenectady Storage and Trucking McCormack Highway Transportation

Offices: 151 Erie Blvd., Schenectady 5

General Merchandise Storage and Distribution
Pool Car Distribution Household Goods
Storage and Moving Long Distance Trucking



NEW YORK

SYRACUSE, N. Y.

GREAT NORTHERN WAREHOUSES, INC.

• FIREPROOF •

MERCHANDISE STORAGE and DISTRIBUTION

-2 PRIVATE RAIL SIDINGS

DAILY, STORE-DOOR, MOTOR FREIGHT SERVICE TO ALL NEW YORK STATE POINTS

Member: American Chain of Warehouses — MayWA

SYRACUSE, N. Y.

DISTRIBUTION
MOTOR FREIGHT LINES
PRIVATE RAIL SIDINGS

KING
STORAGE WAREHOUSE, INC.
SINCE 1897

ERIE BLVD. AT 50. WEST ST., SYRACUSE 1
COMPLETE MERCHANDISE AND HOUSEHOLD GOODS STORAGE
SERVICES

Represented by
DISTRIBUTION SERVICE, INC. Member:
A.W.A.—N.F.W.A.—A.V.L.

UTICA, N. Y.

BROAD STREET WAREHOUSE, INC.

Complete Warehousing

Service

General Merchandise — Cold Storage

Heated Storage

Private Siding and Motor Freight Terminal

Daily Trucking Service to all

Points in New York State

UTICA, N. Y.

Established 1916

UTICA WAREHOUSE CO., INC.

Box 276

Utica 1, N. Y.

MERCHANDISE STORAGE

Specializing in Cotton, Cotton Waste, Textiles, Alkalies, Denatured Alcohol, Anti-Freeze, Automobiles, Etc. Warehouses on D.L.&W. and N.Y.C. Private siding. Spring-klered throughout. Pool car distribution. Motor service.

postwar vehicles, Mr. Cass said. Transmission cases, bell housings, oil pans, radiator shells and some engine crankcases have been made of aluminum with some success. Because only trucks benefiting by the above uses of aluminum would need it, future use of aluminum on trucks depends on price. For that reason an all-aluminum engine is not going to be found in the postwar truck.

Let's hope, Mr. Cass concluded, that sales and advertising departments will keep engineers busy, not on styles of trucks, but "in meeting the real demands of transportation." (Leffingwell)

New Freight Terminal Opened by PIE

Pacific Intermountain Express has opened a modern new freight terminal in Emeryville, Cal., in the San Francisco Eastbay, supplementing the existing terminal in the city for the convenience of San Francisco shippers. This company has grown in two years from a small local operator into one of the largest motor freight carriers in the United States. Originally the operations were confined to service between the San Francisco Bay area and Salt Lake City. Now the company handles service south to Los Angeles, through the intermountain area, and east to St. Louis, with a mileage of some 8,000 miles daily. Fleet has increased 100 per cent in the past year. A new fleet purchase of 21 pickups

for use in the Bay area has just been made. The new terminal cost \$150,000. President is A. K. Humphries; vice-president and general manager, C. E. Johnson; E. Frank Eardly, vice-president sales and traffic; Ira Hodge, treasurer; S. A. Glikbarg, secretary. (Gidlow)

Rolling Roll of Honor

Motor Cargo, Inc., Akron, O., has established what it believes is the first

Two-Speed Rear Axle Announced for '45

Many new features and improvements will be incorporated in the commercial trucks to be produced by International Harvester Co. in 1945, P. V. Moulder, general manager of the company's motor truck division, announced recently.

Some of these improvements had been contemplated before civilian truck production was stopped by the government in March, 1942, Mr. Moulder stated, while others were developed in various military models the company has produced since that time.

All International medium and heavy-duty trucks to be made next year for civilian use will be available with two-speed as well as single-speed rear axles, Mr. Moulder said. They will be equipped with vacuum-controlled shift mechanism for the two-speed axle, he said.

Christmas Seals

Despite war, there is still need for funds to aid in the prevention of tuberculosis. Buying Christmas seals is not charity but self-protection.

"rolling" roll of honor. This is a gold-lettered scroll emblazoned below an eagle on the sides of a tractor-trailer unit which hauls war freight between Philadelphia and Minneapolis, and shows the names of 174 employees of the company now in uniform. (Kline)

Truck Operators Protest Proposed Tax

Truck operators in California are exercised over a proposal to charge \$1 for each automobile operator's permit issued. The idea originates with a California Interim Committee on motor vehicles. While the \$1 which would be collected every four years when new permit must be obtained does not amount to much, motor truck people say it is time legislators called a halt to their tendency to turn to highway users every time they feel like taxing something. (Gidlow)

J. D. Heiskell & Co.

California Railroad Commission has authorized J. D. Heiskell & Co., Inc., a corporation, to transfer to J. D. Heiskell & Co., a limited partnership, a public utility warehouse property situated in Tulare, Cal. Permission to dissolve the corporation and transfer the assets to the stockholders and form a limited partnership of the corporation's stockholders under the name of J. D. Heiskell & Co., was also granted by the C.R.C. (Herr.)



Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

Largest Warehouse in Utica, New York

Household Goods and General Merchandise; Pool Car Shipments; Long Distance Van Service; Complete Branch Office facilities

MURRAY WAREHOUSE CO., INC.

General Offices: 106 WHITESBORO ST., UTICA 2

Member: American Chain of Whses.—N. Y. State Warehousemen's Assoc.

MEMBER MAYFLOWER



WAREHOUSEMEN'S ASSN

WHITE PLAINS, N. Y.

J. H. EVANS & SONS, INC.

Office & Warehouse: 107-121 Brookfield St.

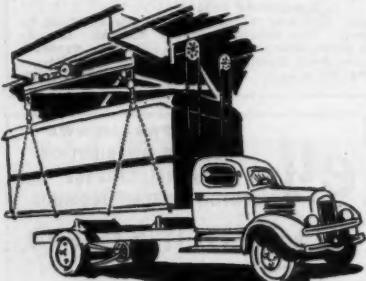
Household Goods Moving, Storage, Packing, Shipping
Prompt service for any point in Westchester County

Member N.Y.F.W.A.—N.F.W.A.

Demountable Bodies

(Continued from page 39)

winch from the truck to the freight car without the necessity of using auxiliary overhead lifting equipment. The units that have been developed for use only with motor trucks and not for railroad haulage have been constructed of lighter materials. Some of these are lifted on or off the truck or trailer chassis by means of overhead cranes, or the demountable



Demountable Body

bodies have been equipped with wheels or casters so they can be rolled from the transporting unit to the operating floor. In other systems, they have been suspended in side frames with an elevating and lower mechanism for raising and lowering, in which case

the truck or trailer chassis is backed in under the load but the demountable bodies are held in one place for loading and unloading cargo.

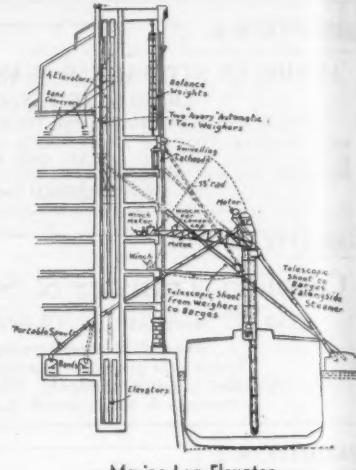
Application — Demountable bodies have many applications, and are particularly used to reduce the waiting time for loading and unloading of motor vehicles. They are the forerunner of the unit load system of handling, and have been used extensively by department stores to handle from the stores to consolidation stations; by milk companies and large trucking organizations. Some industrial plants have used them for inter-plant and intra-plant handling.

Marine Leg Elevator

Definition — A continuous bucket elevator mounted in special supports to compensate for the rising and lowering of the tide.

Description — Marine leg elevators are somewhat different than the ordinary bucket elevators although they operate on the same principle. However, since they must be able to move to compensate for the rising or lowering of the tide, it is necessary that they be supported in such a way that the vertical position can be changed. In some instances, it is necessary also to have the support arranged so that it can slew from one side to another in order to compensate for different sizes of vessels and locations of the hatch. The elevator itself is self-contained with the

motor mounted at the head, and the discharge either is made to a chute or to some other form of conveyor for transportation to the dock or storage shed. Some of these marine leg elevators have been made with telescoping sections, as shown in the sketch, so as to be able to take care



Marine Leg Elevator

of deep hold vessels, and extremely wide tide variations, without the necessity of having too large a unit in height to suspend from the side of the building when it is not in use.

CLEVELAND, OHIO

DOING BUSINESS IN CLEVELAND 33 YEARS

CLEVELAND STEVEDORE COMPANY

Equipped for Tough Jobs in the Cleveland Area for Stevedoring and Warehousing

In Cleveland—two lake front warehouses (Decks 29 and 22) each with 20-car spotting capacity, together with water depth for large lake steamers. Truck platforms. Floor loads unlimited. Served by PRR, Inland Warehouses—Junius, Kinsman, and

Consolidated. All fireproof. PRR siding at Junius, NYC private siding at Kinsman and Consolidated.

Water—Rail—Truck

Warehousing—Handling—Stevedoring

Five warehouses are ready to help you with your tough jobs. Equipped with 4 locomotive cranes. With buckets and magnets for handling heavy steel or bulk commodities. Other mechanical equipment for handling merchandise.

DOCK 22, Foot of W. 9th Street CLEVELAND 13, OHIO

CLEVELAND, OHIO

Established 1884

CLEVELAND STORAGE COMPANY, INC.

All Merchandise Storage Facilities

Storage in Transit—East, West and South

Field Warehousing

General Office: Guardian Bldg. (14) Phone: Main 5415.

Warehouses: Cleveland, Ohio, and Dunkirk, New York.

Rep. by INTERLAKE TERMINALS, INC., 271 Madison Ave., New York City 16

MURRAY HILL 5-8387

CLEVELAND, OHIO

CURTIS STORAGE & TRANSFER, INC.

"STORE WITH CONFIDENCE"



Specializing in Merchandise Storage
Pool Car Distribution—Bulk Tank Storage
Operating Own Delivery Equipment
Private Siding, N.Y.C.R.R.

FRENCH & WINTER STS.

CLEVELAND 13, OHIO

CLEVELAND, OHIO

"An old organization with young ideas"

THE GREELEY-GENERAL WAREHOUSE COMPANY

located in the

New York Central Freight Terminal
BROADWAY AND EAST 15TH STREET
Cleveland 15



CLEVELAND, OHIO

DIRECT FROM FREIGHT CARS



SHIPMENTS to Cleveland, consigned to The Lincoln Storage Company over any railroad entering the city, can be handled from freight car direct to our loading platform.

Carload shipments to our private siding, 11201 Cedar Ave., on the N. Y. C. Belt Line, connecting with all R.R.s. entering Cleveland; L. C. L.-Penns. Euclid Ave. Sta. adjoining Euclid Ave. warehouse; other R.R.s. to Cleveland, Ohio.

LINCOLN STORAGE

W. E. Thomas, Pres.

5700 Euclid Ave.

CLEVELAND

11201 Cedar Ave.



Members NATIONAL FURNITURE WAREHOUSEMEN'S ASSN.

Agents ALLIED VAN LINES, INC.

CLEVELAND, OHIO

TEL. CHERRY 4170

Member of A.W.A.

NATIONAL TERMINALS CORPORATION

1200 WEST NINTH ST., CLEVELAND 13

Three Modern Fireproof Buildings—Two with Dock Facilities
on Cleveland's Water Front

Most Economical Warehouse and Distribution Services
VIA WATER—RAIL—TRUCK ARE AVAILABLE THROUGH
Cleveland's Largest Cold and General Merchandise Warehouse



CLEVELAND, OHIO



City-wide Facilities on Storage and Distribution of Household Goods

Private rail sidings

Ample equipment

A real reputation for service

Address inquiries to:

The NEAL Storage Company
7208 Euclid Ave., Cleveland, 3

Exclusive Agent:
Greater Cleveland
for Aero-May-
flower Transport
Co.

CLEVELAND, OHIO

The OTIS TERMINAL WAREHOUSE
HAS THE FACILITIES
TO MEET ALL OF YOUR NEEDS

Downtown location; Modern and fireproof; Low insurance rates;
Enclosed docks and siding on Big 4 Railroad; Daily delivery service;
Office and display space; Telephone accommodations; U.S. CUSTOM BONDED.

General Office: 1340 West Ninth St.

CLEVELAND, OHIO

RAILWAY WAREHOUSES, Inc.
in CLEVELAND, OHIO
For Facilities, Service and Security

Write for Details

Address 3540 Croton Ave., S. E., Cleveland 15, Ohio

Marine leg elevators also can be supported from traveling Gantry structures if it is necessary to move them longitudinally the length of the dock.

Application—Marine leg elevators generally are used in connection with granaries, flour mills, breweries, oil mills, unloading of coal at gas plants, for the handling of grain, seed, such as cotton or lint seed, as well as nuts, Easter beans, copra and other similar materials.

Chicago Considers Port Authority

Chicago, long recognized as the hub of the nation's transport system, is pondering a plan for creation of a Chicago Authority, which would have full control over all transportation terminals, warehouses and other distribution facilities in Chicago and the adjacent metropolitan area.

Functioning in a way similar to that of the Port Authority of New York, the new agency would be given power to build or acquire terminals to serve rail, air, water, trucking and bus lines. Operations would be financed through sale of revenue bonds without recourse to taxes and the project would be expected to pay its way with rental fees collected from users of the facilities. Envisioned in the plan is construction of a giant union railroad station, a vast trucking terminal and five airports. (Slawson)

Little Known Facts About air transport industry; charts, figures, 28 p. Air transport Association of America, 1515 Massachusetts Ave., N.W., Washington 5, D.C.

Ashes Make Poor Gunpowder. "Fight against fire"; 28 p. National Board of Fire Underwriters, 85 John St., New York 7, N.Y.

Amercoat No. 23 Plastic Coating. Bulletin on uses of general purpose, cold-applied plastic coating. Amercoat Division, American Pipe and Construction Co., P. O. Box 3428, Terminal Annex, Los Angeles 54, Cal.

Automatic Transporters. Literature on "automatic transporter" platform, pallet type motorized hand lift trucks. Automatic Transportation Co., 151 W. 87th St., Chicago 20, Ill.

Gliding. Initial issue on "importance of gliding in transportation." Illustrated. 10-p. Gliding, 4658 Portage Rd., Kalamazoo 85, Mich.

The Continental Eagle. CAL personnel activities booklet. 19 p. Continental Air Lines, Inc., Municipal Airport, Denver, Colo.

Ten Years Before Pearl Harbor. Regarding 10 years of changes in trucks. Illustrated. 24 p. Marmon-Herrington Co., Inc., Indianapolis 7, Ind.

AVAILABLE

Transportation executive with 25 years' experience in all phases of transportation including tariff compilation. Prefers air line or industrial connection in East.

Address Box Y-983, care DandW,
100 East 42nd St., New York, 17

COLUMBUS, OHIO

Established in 1882

Columbus Terminal Warehouse Company
55-85 Terminal Way
Columbus 8, Ohio

Modern warehouses and storage facilities.
A.D.T. System. Private double track siding.
Free switching from all railroads.

• Represented by  ALLIED DISTRIBUTION INC.
11 WEST 43RD ST., NEW YORK 6-0967

CHICAGO
111 WEST MICHIGAN AV., CHICAGO



COLUMBUS, OHIO

Consign Your Household Goods Shipments to

DAN EDWARDS at COLUMBUS

Packing—Shipping—Storage—Local and Long Distance Moving—Steel
and Concrete Warehouse—Private Siding

EDWARDS TRANSFER AND STORAGE CO.
430 North High St., Columbus 15



Member—National Furniture Warehouses Association. Agent—Allied Van Lines, Inc.

COLUMBUS, OHIO

HILLTOP VAN & STORAGE CO.

2830 W. Broad St., Columbus 4

Household Goods Storage



Burglar alarms—ADT
Local and Long Distance Moving
Agents for North American Van Lines, Inc.

COLUMBUS, OHIO

THE MERCHANDISE WAREHOUSE CO.

370 West Broad St., Columbus 8

Complete service for
MERCHANDISE STORAGE AND DISTRIBUTION
Private Siding NYC and Big Four
14 Car Capacity

Pool Car Distribution A.D.T. Service
Centrally Located Modern Facilities
Members: A.C.W.—O.W.A.—A.W.A.



Books and Catalogs

Practical Hints for Employers of Women, With Special Reference to Transportation. Compilation of facts from several transportation companies employing women on large scale due to wartime conditions. Office of Defense Transportation, Room 1250, New Post Office Building, Washington 25, D.C.

The Marmon-Herrington. 14 p. Pictures, articles on Marmon-Herrington tanks; workers. Marmon-Herrington, Indianapolis 7, Ind.

Good Public Relations for the General Contractor. Manual on building of public good will. 24 p. Associated General Contractors of America, Inc., News Bureau, 10 Rockefeller Plaza, New York 20, N.Y.

Panagra's Trade Survey of South America. Regarding imports, exports between U.S. Latin American countries. Pan American-Grace Airways, Inc., Chrysler Building, New York 17, N.Y.

Pegasus. November issue; pictures, 10 p. Fairchild Engine and Airplane Corp., 30 Rockefeller Plaza, New York 20, N.Y.

Quarter-Deck. Shipping employees' magazine; pictures, 10 p. St. Johns River Shipbuilding Co., Jacksonville, Fla.

Hydraulic Devices. Engineered, developed for specific applications. Bulletin 187. Lyon-Raymond Corp., Madison St., Greene, N.Y.

Federal Agencies. Descriptive tabulation of 428 functional federal government units. 60 p. Citizens' National Committee, Inc., 1409 L St., N.W., Washington 5, D.C.

Dutch Boy Quarterly. Practical, technical discussions of paint materials, lead and related products; pictures, 25 p. National Lead Co., 111 Broadway, New York 6, N.Y.

Products of Clark. Illustrations, descriptions, Clark Celfor drills and reamers, etc.; vest-pocket booklet, 82 p. Clark Equipment Co., Buchanan, Mich.

Clark Pictorial. Fully illustrated, 23 p. booklet; fork trucks, other Clark products. Clark Tractor Div., Clark Equipment Co., Battle Creek, Mich.

The Palletizer. Concerning pallet wartime uses. Pictures, 28 p. U.S. Naval Ammunition Depot, Hingham, Mass., Materials Handling Laboratory.

Firefax. Information on fires, fire fighting. Pyrene Mfg. Co., Newark 8, N. J.

Your United Mainliner. Facts, figures on new 4-engined mainliner. United Air Lines, 5959 S. Cicero Ave., Chicago 38, Ill.

Reo News. Monthly publication of Reo news. Pictures, 7 p. Reo Motors, Inc., Editorial Office, 1331 S. Washington Ave., Lansing, Mich.

B. F. Goodrich Rechargeable Storage Battery for Flashlights. Pictures, 6 p. outlining development of rechargeable wet storage battery. B. F. Goodrich Co., Akron, O.

Torq-Stop. Resumes of Livermont Torq-Stop Tools, 10 p.; pictures, charts. Richmont, Inc., P. O. Box 6450, Metropolitan Station, Los Angeles 55, Cal., or Milton E. Disser, 428 Center Bldg., Detroit 2, Mich.

ADT Transmitter. Monthly news-magazine on fire, burglary and holdups. 10 p., pictures. American District Telegraph Co., 155 Sixth Ave., New York, N. Y.

The Martin Star. Naval Air Transport Service issue. 22 p., pictures. Glenn L. Martin Co., Baltimore 3, Md.

Safety Rules. Folder with safety rules for operators of power industrial trucks. Elwell-Parker Electric Co., 4205 St. Clair Ave., Cleveland 14, O.

Transition Opportunities. Booklet containing 200 reports: peacetime trade potentialities, product innovations. 25c. each. N. Y. Journal of Commerce, 68 Park Row, New York 15, N. Y.

Making and Holding Friends Through Courtesy. Two-part common sense booklet to "inspire personal and company progress." Personnel Dept., Illinois Central System, Chicago, Ill.

Construction

Farmers Union Vegetable Oil Cooperative, St. Paul, Minn., has received approval for priorities on equipment for construction of a plant for processing flax, sunflower and mustard seed at Conrad, Mont. The plant will have capacity of 500 bu. daily and will cost \$60,000. (Herr.)

FOR SALE
Household goods interstate operating rights. From Chicago and Mid-West points and from New York and other Eastern states to an area composed of 36 states running from Eastern seaboard to Rocky Mountains.

Address Box X-872, care DandW
100 East 42nd St., New York 17.

Circuitous Routing Official Named

The Office of Defense Transportation has designated F. S. Keiser, associate director, Division of Railway Transport, Room 1955, 209 S. Wells St., Chicago, as the contact officer with whom railroads and shippers may handle cases of circuitous or burdensome routing. This authority extended to Mr. Keiser covers domestic and export freight whether shipped by the civilian distributors or by Governmental agencies. Shippers and railroads are requested to report all instances of circuitous or burdensome routing to that office.

Nothing in these instructions in any way modifies, conflicts or affects diversion orders issued by the Interstate Commerce Commission or its agents.

Proposes Enlargement Of Harbors Group

Interlake Terminals, Inc., recently adopted a resolution calling for the enlargement and strengthening of the Great Lakes Harbors Assn. to provide greater use of the Great Lakes for transportation; recommended that the association open its membership rolls to all commercial, industrial and individual interests which would promote the Great Lakes region, and suggested dropping the word "harbors" from the name of the association.

Westland Steel Company Announced on Coast

Coincidental with sale of its fabricating steel plant and warehouse steel department, Pennsylvania Iron & Steel Co., Los Angeles, has announced the company name has been changed to Westland Drawn Steel Co.

Under the new arrangement, Westland Drawn Steel Co. will concentrate exclusively on cold drawn bars production and carry on activities of cold drawn bar division established by Pennsylvania Iron & Steel Co. in 1942.

The fabricating plant and warehouse is operated by Roy A. Badt and John Landis as Pennsylvania Steel Co., now merged with Junior Steel Co. Both firms are separately owned and operated, but will share offices for the duration of the war at 2451 E. 23rd St., Los Angeles. (Herr.)

COLUMBUS, OHIO

The NEILSTON STORAGE CO.

260 EAST NAGHTEN ST., COLUMBUS 15

Modern warehouse for merchandise—Low insurance—Central location in Jobbing district—Private railroad siding—Pool cars distributed.

Member of O.W.A.



MARION, OHIO

WRIGHT TRANSFER & STORAGE CO.

126 OAK ST.

Est. 1904



Merchandise—Household Goods
Wright Service to Meet Your Requirements

Member of N.F.W.A.—A.V.L.—O.F.W.A.



SPRINGFIELD, OHIO



WAGNERS SERVICE, INC.

Pennsylvania Railroad and Lowry Ave.

A warehouse service that embodies every modern facility for the storage and distribution of Household Goods and Merchandise—Motor Freight Service—Door to door delivery at Dayton, Springfield and Columbus daily.

Member of A. W. A.—O. W. A.



TOLEDO 2, OHIO



Merchandise and Furniture Storage

Willis Day

Automatic fire and burglar alarms—ADT
Long Distance Moving

TOLEDO, OHIO

CAR CAPACITY

800—COLD
400—DRY

PRIVATE SIDINGS

N.Y.C. AND
B&O. RR's



GREAT LAKES TERMINAL WAREHOUSE CO.

321-359 MORRIS ST.

TOLEDO 4, OHIO

COMPLETE WAREHOUSE FACILITIES

TOLEDO, OHIO

Merchants and Manufacturers Warehouse Co.

Office and Main Warehouse: 15-23 So. Ontario St., Toledo 3
BRANCH WAREHOUSE: 2131-51 Smead Ave.

Center of Jobbing District



Sprinklered Buildings—200,000 square feet Dry Storage—70,000 cubic feet Cool Storage—Private Sidings—Nickel Plate Road. New York Central—Free Switching. Merchandise Storage—Pool Car Distribution—Negotiable Receipts—Transit Storage Privileges—Low Insurance Rate—City Delivery System.

Cost factors in distribution are discussed on p. 15 of this issue by Henry G. Elwell, traffic consultant. Do you know your costs?

ALLEGHENY, PA.



Only Large Fire-Resistant Warehouse in
Lehigh Valley
DIEHL STORAGE COMPANY
128-132 N. 8th ST.
HNG.—STORAGE—MDSE.
MOVING—CATERING—SHIPPING
F. WILLARD WOLFE, PRES. & GEN. MGR.

BUTLER, PA.



C. W. NICHOLAS, Pres. Est. 1902
O. H. Nicholas Transfer & Storage Co.
324 So. McKean St.
Merchandise and Household Goods
Pool Car Distribution
3 Car Siding
Packing and Crating
Free Wrapping
2 Warehouses 41,000 sq. ft.

HARRISBURG, PA.



INC. 1902
HARRISBURG STORAGE CO.
COMPLETE STORAGE & POOL CAR
DISTRIBUTION SERVICE
MODERN WAREHOUSES
LOCATED ON BOTH PENNSYLVANIA
AND READING RAILROADS
MEMBER — "AMERICAN WAREHOUSEMEN'S ASSN."

HARRISBURG, PA.

KEYSTONE WAREHOUSE
GENERAL MERCHANDISE STORAGE
POOL CARS DISTRIBUTED
BRICK BUILDING—LOW INSURANCE
STORE DOOR DELIVERY ARRANGED FOR
PENNA. R. R. SIDING
OPERATED BY HARRISBURG WAREHOUSE CO.

HAZLETON, PA.



EST. 1911
KARN'S STORAGE, INC.
MERCHANDISE WAREHOUSE L.V.R.R. SIDING
Storage in Transit Pool Car Distribution
Packing — Shipping — Hauling
Fireproof Furniture Storage
Members: Mayflower W.A.—P.F.W.A.—P.W.A.

LANCASTER, PA.

LANCASTER STORAGE CO.
LANCASTER, PA.

Merchandise Storage, Household Goods, Transferring,
Forwarding
Manufacturers' Distributors, Carload Distribution,
Local and Long Distance Moving
Member of May.W.A.

PHILADELPHIA, PA.

Member of AWA-PWA

COMMERCIAL WAREHOUSING CO.

Meadow & Wolf Streets, Philadelphia 48

Thoroughly Modern Facilities—Customs Bonded
Complete Warehousing Service for Storage
& Distribution of General Merchandise.
Distribution of Merchandise & Household Goods Pool Cars

PHILADELPHIA, PA.

Est. over 50 years

FENTON STORAGE CO.

Absolutely Fireproof
46th and Girard Ave., Philadelphia 31
Cable Address "Fenco"
P. R. R. Siding

Storage, moving and distribution of household goods and merchandise

Postwar Storage Needs for Surplus Materials Likely to Total 100,000,000 Sq. Ft.

GOVERNMENT agencies will need approximately 100,000,000 sq. ft. of storage space for surplus materials after the war ends, Col. Albert B. Drake, director, Storage Division, Army Service Forces stated recently. Of this total, approximately 60 per

cent calls for covered storage and the remainder open area, Col. Drake told a termination and reconversion conference sponsored by New York University school of law.

He said that in order to obtain this space, the storage division of the ASF

will first utilize Defense Plant Corp. plants when they have been declared surplus to production needs and are found suitable for use in the storage program.

Next to be utilized will be space at Army posts and camps which is no longer needed by the Army.

The government also is acquiring sizable areas of open space suitable for the erection of temporary or prefabricated shelters, Col. Drake said, but this method will be used only in areas where DPC plants or surplus Army posts are not available.

Commercial space will be leased as a last resort, he added.

8,000 lb. Hammer Flown to Burma

The heaviest single piece of equipment ever to be shipped by air from La Guardia Field, an 8000-lb. trip hammer, was transported by an Air Transport Command four-engined C-54 cargo plane to an Army Air Force unit in the China-Burma-India theatre recently according to ATC priorities and traffic officers.

Priceless Cargo . . .

RESPONSIBILITY of transporting "one of the richest cargoes ever to be shipped by truck in America" was recently accomplished with success twice by Davidson Transfer & Storage Co., Baltimore, Md. The first fleet of 30 trucks required to transport the load was maneuvered into position at the Library of Congress, Washington, D. C., early in Dec., 1941, shortly after the attack on Pearl Harbor when officials of the Library decided to move its valuable contents to places of safer and of secret keeping.

Including the Bill of Rights, original drafts of Lincoln's Gettysburg Address, manuscripts of Thomas Jefferson and early American composers, the St. Blasius-St. Paul copy of the Gutenberg Bible and England's

Magna Carta, entrusted to our country since the War began, the cargo (weighing 621,050 lb., equivalent of 26 freight car loads) was individually packed into wooden boxes or packing cases, specially fabricated; placed in an assigned spot in an assigned truck, which was consigned to a specified inland depository.

Tractors and 30-ft. trailers were employed with drivers specially trained in speed and efficiency. By the following March all of the contents had been placed in their assigned depositories under armed guard.

This September, they were returned, again uninsured and again without accident, to the Library in Washington.

THE responsibility of carriers and consignees in correcting misuse of second-hand shipping containers was presented in a paper by K. L. Sodergren, assistant traffic manager, Montgomery Ward & Co., at the recent session of the Pacific Coast Transportation Advisory Board in San Francisco.

Mr. Sodergren prefaced his analysis of the used carton situation with the statement that the subject of used containers for the transportation of freight is of vital concern to the manufacturers of merchandise as well as to carriers, receivers and consumers.

The fact that almost all of the merchandise shipped to Montgomery Ward stores is in used cartons, Mr. Sodergren pointed out, had afforded him an opportunity to observe the handling and receipt of shipments at nearly all major points on the Pacific Coast.

It has been noted, Mr. Sodergren said, that the freight received at Montgomery Ward & Co.'s Oakland, Cal., branch from eastern sources generally is better packed in used cartons than freight received from western points. He expressed the opinion that length of haul, apparently, has quite a lot to do with the quality of packing. He amplified this point with the statement that shippers in the Los Angeles area pack merchandise for shipment to Oregon, Washington, Montana and Idaho points better than the same type of products for delivery to California.

Misuse of Re-used Cartons Lifts Shipping Costs

Efficient use of second-hand containers for the transportation of freight is of vital concern to manufacturers of merchandise as well as to carriers, receivers and consumers.

Correction of existing misuses of second-hand containers, Mr. Sodergren stressed, is the responsibility both of carriers and receivers of freight. The rail carriers, he pointed out, can relieve the situation materially by enlisting the aid of their street men who in normal times solicit business.

"Each carrier," Mr. Sodergren said, "stands to save enormous sums in reduced claims if carriers as a whole can educate shippers in the proper use of second-hand containers. Receivers of freight, perhaps, can do most in the important matter of educating shippers."

Mr. Sodergren cited Montgomery Ward & Co.'s plan as an example of one type of program of shipper education. The greater part of the firm's transcontinental l.c.l. tonnage, he explained, moves through one or more consolidation points en route to the final destination stores. At those con-

solidation points, the company uses a form letter, made out in duplicate, which lists seven errors in shipping originating at the source.

Seven Common Errors

These common errors, as cited by Mr. Sodergren, follow:

1. Name of source, as shown on bill of lading, was not the same as shown on the shipping labels attached to containers.
2. Names of previous shippers were not obliterated from used containers.
3. Incomplete destination marks. Each container should show store name, store number, order number and weight.
4. Name and address of consigner incomplete. Full name and address should show on each container.
5. Manifest or distribution sheet

PHILADELPHIA, PA.

Fidelity Storage and Warehouse Company

General Offices—1811 Market St., Phila. 3

Agent for Allied Van Lines, Inc.

Bus type vans for speedy delivery anywhere. We distribute pool cars of household goods. Prompt remittance.

Assoc. N. F. W. A., Can. W. A., P. F. W. A.

PHILADELPHIA, PA.

Established 1865

GALLAGHER'S WAREHOUSES

708 South Delaware Avenue, Philadelphia 47

Merchandise Storage Storage in Transit

Direct Sidings—Penns. RR. and Reading RR.

Pool Car Distribution

Represented by Associated Warehouses, Inc.

New York (17) Deliveries Chicago (6)

55 Vanderbilt Ave. City and Suburban 549 W. Randolph St.

Murrayhill 9-7645 Randolph 4458

Over 1,000,000 square feet

of space in 22 modern warehouses, with every trans-

portation connection and the most modern handling

facilities. Large modern fleet for store-door service.

A complete set-up to meet and improve your Phila-

delphia storage and distribution problems, with

war-time economy. Full details on request.

MERCHANTS WAREHOUSE CO.

10 CHESTNUT ST.

phone LOM. 8070

11 modern warehouses located in important shipping centers. Served by all railroads. Loading and unloading under cover. Storage-in-transit privileges. Goods of all kinds, bonded and free.

PHILADELPHIA, PA.

BUELL G. MILLER, President

MILLER

North Broad Storage Co.

2709 No. Broad St., Philadelphia 32

BROAD & LEHIGH & BRANCHES

Member of P.M.T.A., C.F.M.A. of Pa.

WARTIME WAREHOUSING in Philadelphia

Over 1,000,000 square feet

of space in 22 modern warehouses, with every trans-

portation connection and the most modern handling

facilities. Large modern fleet for store-door service.

A complete set-up to meet and improve your Phila-

delphia storage and distribution problems, with

war-time economy. Full details on request.

PENNSYLVANIA WAREHOUSING & SAFE DEPOSIT CO.

4th and Chestnut Streets • Philadelphia 6

WARREN T. JUSTICE, President

MEMBER: A. C. W. A. W. A. P. W. A.

REPRESENTATIVES:

GEO. W. PERKINS, 82 Beaver St., New York, Wb 4-2287

J. W. TERREFORTE, 250 Park Ave., New York, PI 3-1235

W. J. MARSHALL, 53 W. Jackson Blvd., Chicago, Har 1496



PENNSYLVANIA



13 MODERN WAREHOUSES



—serving PHILADELPHIA AND VICINITY with Economy and Dispatch!

Strategically located throughout Philadelphia, they provide more than 68 acres of excellent storage space.

Each building is equipped with every convenience, designed for the safe, prompt, and economical handling of goods of every kind. All earn low insurance rates.

Special provision is made for the storage of household goods.

Served by both Pennsylvania Railroad and the Reading Company. Convenient to the big piers. Completely equipped pool car department is maintained.

Write for Particulars

Represented by
DISTRIBUTION SERVICE, Inc.

An Association
of Good Warehouses Located at
Strategic Distribution Centers

TERMINAL WAREHOUSE COMPANY

DELAWARE AND FAIRMOUNT AVES. • PHILADELPHIA 23



Members: A. W. A.,



N. F. W. A., Pa. F. W. A.



2 Broadway, NEW YORK CITY
Phone: Bowing Green 9-0986

625 Third St., SAN FRANCISCO
Phone: Sutter 3-461

219 E. North Water St., CHICAGO
Phone: Sup. 7180

(on consolidation shipments) was not sent to the distribution point. Manifest indicating store name, order number, number of packages and weight should be sent with every consolidated shipment.

6. Marks on containers were illegible. Use of stencil should be standard practice.

7. Containers of insufficient strength were used for weight of contents.

The form letter, according to Mr. Sodergren, goes still further in soliciting the cooperation of the shipper in order to secure fast, efficient and economical transportation. It is pointed out to the shipper, for instance, that the correction of errors in the shipping will result in the elimination of losses, damages and delays in the payment of invoices.

Letters to Shippers

When any of the shipping errors is noted by the freight handlers at the consolidation point, it is checked off on the form letter, the heading is filled in, and the letter sent to the shipper. A copy is kept at the consolidation point, and at the end of each month these copies are reviewed. If it is felt that one particular source is consistently making errors, the company contacts the president or general manager of the company making the errors, pointing out the losses being suffered by merchandise in transit, due to misuse of second-hand contain-

ers or whatever other nature the complaint may represent.

"It has been found," Mr. Sodergren said in summing up his observations, "that the most common complaint is that containers of insufficient strength were used for the weight of the contents of the carton. We have been quite successful in getting our large shippers to correct this, so that their re-used containers are coming through in good shape. They are properly protecting the merchandise they ship to our stores."

Mr. Sodergren indicted as the worst offenders in the use of containers of insufficient strength were the small manufacturers who make infrequent shipments. This type of shipper, he emphasized, should receive the special attention of the directors of educational programs aimed at improving packaging. The railroad, receiving shipments in inadequate, used cartons, Mr. Sodergren said, could police the matter and have the agent or freight claim prevention depart-

ment educate the shipper in the proper use of re-used cartons.

Small Manufacturers

"It is with the small manufacturer that the railroad claim prevention program can be very effective," he said. "These people do not have the volume or the capital to support a packing engineer in their organizations. A system of notification by agents at the point of origin would advise the claim prevention department of the most flagrant offenders making shipments, and a visit to the manufacturer would do much to correct his shipping errors."

Mr. Sodergren pointed out that most of the sources cited above ship their manufactured product in cartons picked up at local used carton dealers, or in cartons originally containing the materials from which the product is manufactured. An incentive for employees of such manufacturers to handle used cartons properly has been made by the War Production Board, he said, which has made a suggestion that employers offer their employees a bonus for careful handling of inbound cartons.

Other Methods

At the conclusion of Mr. Sodergren's paper, N. M. Manor, traffic manager, Grether & Grether, Inc., Los Angeles jobbers in dry goods, supplemented the previous speaker's re-

WAREHOUSE EXECUTIVE

Available. 15 Years experience in finance, accounting and management. Midwest preferred.

Address Box U-547, care DandW
100 East 42nd St., New York 17

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

PENNSYLVANIA—PUERTO RICO

PHILADELPHIA, PA.

Complete Household Goods Service!



**QUAKER
STORAGE COMPANY**

2501 GERMANTOWN AVE., PHILA. 33

Agents for United Van Lines, Inc. Member: P.M.T.A., G.F.M.A., P.F.W.A.

MONTGOMERY, PA.

DUQUESNE WAREHOUSE CO.

Office: Duquesne Way and Barbeau St.
Pittsburgh 22

Merchandise Storage & Distribution

Members A. W. A.

MONTGOMERY, PA.

Herbert Bietenduefel, Vice Pres. & Oper. Executive

PENNSYLVANIA WAREHOUSE COMPANY

50-17th STREET, PITTSBURGH 22, PENNSYLVANIA

MERCHANDISE STORAGE • POOL CARS DISTRIBUTED
MODERN SPRINKLERED BUILDING
CONSIGN SHIPMENTS
VIA PENNA. RR TO 13th STREET STA.

MONTGOMERY, PA.

ED WERNER TRANSFER & STORAGE COMPANY

1917-19 Brownsville Road
Pittsburgh, Penna.

Storage, Packing and Shipping

Member of National Furniture Waremen's Assn.

Agent of Allied Van Lines, Inc.



MONTGOMERY, PA.

THOMAS WHITE, Owner and Manager

13th AND SMALLMAN STS.

PITTSBURGH 22

*In the Heart of
Pittsburgh's
Jobbing District*

STORAGE IN TRANSIT

COMPLETE TRUCKING FACILITIES

PRR SIDING

A. D. T. PROTECTION

Also operators of

WHITE MOTOR EXPRESS CO.

Established 1918

**WHITE TERMINAL
COMPANY**

13th AND SMALLMAN STS.

SCRANTON, PA.

R. F. POST

DRAYMAN & STORAGE WAREHOUSE

221 Vine St., Scranton 3

HOUSEHOLD STORAGE
MERCHANDISE STORAGE
LOCAL AND LONG DISTANCE MOVING
PRIVATE SIDING, D. L. & W. R. R.

POOL CARS
PACKING

SCRANTON, PA.

THE QUACKENBUSH WAREHOUSE CO.

219 VINE STREET, SCRANTON 3
MERCANDISE AND HOUSEHOLD GOODS
STORAGE POOL CAR DISTRIBUTION
D. L. & W and D & H Sidings

Represented by
NEW YORK ALIED DISTRIBUTION INC. CHICAGO
11 WEST 43RD ST. PENN 6-0948 1525 NEWBERRY AVE. SHAWNEE

SHARON, PA.

SHARON COAL & ICE CO.

230 W. Budd St., Sharon, Pa.

Cold Storage—Merchandise—Household Goods

2 Warehouses with private sidings on Erie & P. R.R.'s reciprocal switching. Loans on stored commodities. Cold Storage for furs—Cold Storage lockers—Quick Freeze space.

UNIONTOWN, PA.

H. D. RYAN—L. G. HOWARD, Proprietors

KEYSTONE TRANSFER CO.

CORNER BEESON BLVD. & PENN ST.

HOUSEHOLD GOODS PACKED, SHIPPED, STORED
LONG DISTANCE MOVING
Private Siding B. & O. R.R.

WILKES-BARRE, PA.

WILKES-BARRE STORAGE CO.

General Storage and Distribution

Prompt and Efficient Service

12 Car Track Located on Lehigh Valley RR. Switches
Storage-in-Transit and Pool Cars

19 New Bennett St. Wilkes-Barre, Pa.

WILLIAMSPORT, PA.

WILLIAMSPORT STORAGE CO.

FIREPROOF BUILDING—416 FRANKLIN ST., WILLIAMSPORT 36

P. R. R. SIDING

MERCHANDISE STORAGE and DISTRIBUTION

HOUSEHOLD GOODS—DRAYAGE

IDEAL DISTRIBUTING POINT FOR CENTRAL PENNSYLVANIA

SAN JUAN, P. R.

MEMBER AMERICAN WAREHOUSEMEN'S ASSOCIATION

ALMACENES MARITIMOS, Inc.

(MARITIME WAREHOUSES)

11 WAREHOUSES IN SAN JUAN, P. R.

Complete warehouse and distribution service

Warehouses located adjacent to Steamship Piers

Convenient port of importation

SERVICE—SAFETY—GUARANTEE

ALMACENES MARITIMOS, Inc.

MANUEL G. CASSERES, President.

SAN JUAN 12, P. R.

TRANSPORTATION and handling, as links in the chain of distribution, are discussed by Maj. Scragg on p. 21 of this issue. It is worth attention.

marks by outlining a program for checking poor packaging which parallels the Montgomery Ward plan in many respects. Grether & Grether, Inc., Mr. Manor reported, has an extra copy made regarding every claim, regardless of what it may be for, and the extra copy, with a letter, is sent to the shipper explaining the reason for that particular claim.

"We explain in detail to our shippers the exact reason for the claim,

giving them a copy of the claim and telling them that at this particular time we are more interested in merchandise than we are in money," Mr. Manor said. "I received probably 75 per cent acknowledgment, thanking our company. Following through, we found that the places where these letters have gone have brought about a substantial improvement in their methods of shipping in 30 to 60 days." (Herr)

categories: utilities and repair; packing and crating; dunnage; and firewood. As soon as the used lumber is unloaded at depots and ports, it is shipped by truck or rail to the salvage yard where workers remove nails, spikes and tin wrappings.

Oil-soaked lumber is burned to eliminate fire hazards, and unsalvageable scrap is sold for fuel. The remaining lumber is checked, sawed, sorted and shipped where needed.

Cargo ships have a great need for "dimension lumber" which comes from the far West. But large shipments to the East Coast would tie up railroad equipment for this long haul. That is where the port salvage program saves railroad rolling stock.

Ninety per cent of the 300,000 bd. ft. of lumber reclaimed each week at the Boston port is "dimension lumber," which, it is said, if purchased new, would cost \$15,000, or more.

At the Los Angeles Port of Embarkation, giant wire cable spools are being covered with salvaged slats. The port also will build 16-ft. row boats out of salvaged waterproof Douglas fir plywood. Although the program is comparatively new there, it has resulted in the savings of approximately \$200 a day on one operation alone: the substitution of salvage for new lumber in dunnage.

The San Francisco Port of Embarkation is reported to have salvaged enough lumber to represent the equivalent of 37 acres of timber, a saving to the government of \$33,000.

\$1,000,000 in Reclaimed Lumber Saved By Transportation Corps

USED lumber valued at more than \$1,000,000 has been reclaimed in the last three months by the Transportation Corps, Army Service Forces.

Operated principally by Italian Service Units and German prisoners of war at the Transportation Corps' ports of embarkation and other installations, the salvage program is said to have mushroomed from a routine job to a conservation effort increasingly vital to wartime shipping.

Every type of lumber, from bomb racks and bulkheads on freight cars to dunnage (cargo braces and supports on ships), goes into the wood-

pile at port salvage yards where it is sorted for reuse.

Nails, too, are saved. Picked up by a special magnet powered by a gasoline truck, about 90 per cent of their value is derived from their sale to junk dealers. The remainder are straightened and used again.

Reclaimed lumber had piled up at most Transportation Corps installations because of a critical labor shortage. Today, at every port of embarkation in the country except Seattle, Wash., and Hampton Roads, Va., Italian Service Units handle practically the entire project.

Salvaged lumber falls into four

PROVIDENCE, R. I.

CADY MOVING & STORAGE CO.



80-90 Dudley St., Providence 5
FIREPROOF WAREHOUSE
Storage, Moving, Shipping
Fleet of Long Distance Moving Vans
Member National Furniture Warehouses' Assn.
Agent for Allied Van Lines, Inc.



PROVIDENCE, R. I.

Providence Warehouses, Inc.

General Offices: 50 ALEPPO ST., Providence 9

Customs Bonded

Specialists in bulk storage of all kinds—
Cotton, Wool, Hemp, Rubber
Over 400,000 square feet of sprinkler equipped space.

PROVIDENCE, R. I.

Terminal Warehouse Company of R. I., Inc.

336 ALLENS AVE., PROVIDENCE 1

Storage all kinds of General Merchandise. Pool Car Distribution. Lowest Insurance. Trackage facilities 50 cars. Dockage facilities on deep water. Shipping directions South Providence, R. I.

CHARLESTON, S. C.

Merchandise Storage and Pool Car Distribution

Modern Concrete Warehouse, 100,000 Square Feet of Storage Space. Private Tracks Connecting with All Railroad and Steamship Lines. Motor Truck Service. Low Insurance Rates.

CHARLESTON WAREHOUSE AND FORWARDING CORPORATION

16 HASELL STREET, CHARLESTON, S. C.
Telephone 2-2918

Member of ACW-AWA

COLUMBIA, S. C.

CAROLINA BONDED STORAGE CO.

Est. 1928

MEMBER

General merchandise and household goods storage.



Pool Car Distribution. Private rail sidings. Sprinkler equipped warehouse.



GREENVILLE, S. C.

"The Heart of the Piedmont"

TEXTILE WAREHOUSE CO.

Est. 1923

511-13-15 Rhett St.

GENERAL MERCHANDISE—H.H.C. STORAGE

Pool Car Distribution—Motor Truck Service

Low Insurance Rate

Private Siding

SIOUX FALLS, S. D.

WILSON STORAGE AND TRANSFER CO.

Investment
\$350,000

State Bonded
80,000 Sq. Ft.
Floor space

Fireproof, sprinklered building with private siding on the C&NW. Labeling and Storing. Distribution of Pool Cars, Household Goods Transferred. Refrigerated Truck Service. Owners and operators of Wilson Forwarding Co. Members of NFWA—MinNWA—AWA. Agent for AVL

KNOXVILLE, TENN.

FIREPROOF STORAGE & VAN COMPANY, Inc.

201-211 Randolph St., Knoxville 8, Tennessee

135,000 square feet on Southern Railway tracks

Equipped with Automatic Sprinkler

Insurance at 12¢ per \$100.00
per annum. Household goods shipments
selected. Prompt remittance
made. MEMBERS American Warehouses' Assn.
PROMPT AND EFFICIENT SERVICE

RHODE ISLAND—SOUTH CAROLINA—SOUTH DAKOTA—TENNESSEE

MEMPHIS, TENN.



S. S. DENT, Manager

General Warehouse Co.

421 So. Main St., Memphis 3

"Good housekeeping, accurate records,
Personal Service."
Located in the center of the Jobbing
& Wholesale District
Sprinklered
Private R. R. siding

Low Insurance
Perfect service

MEMPHIS, TENN.

Benton T. Grills, Sec'y. & Mgr.

NICKEY WAREHOUSES, INC.

"Memphis Most Modern Warehouses"

285-305 West Trigg Ave., Memphis 2

Merchandise Storage & Pool Car Distribution
Local Delivery Service

A.D.T. Burglar and Sprinkler Supervisory Service. Illinois Central, Frisco & Mo. Pac. Private rail siding & car spot.

MEMPHIS, TENN.

W. H. DEARING, General Manager

POSTON WAREHOUSES

ESTABLISHED 1894

671 to 679 South Main St., Memphis 2

Insurance Rate \$1.20 per \$1,000 per Annum
Merchandise storage, dependable service, free switching, Local storage delivery,
Illinois Central and Cotton Belt Railway tracks. Automatic Sprinkler. A.D.T. watchmen.

MEMPHIS, TENN.

H. K. HOUSTON, Pres. P. D. HOUSTON, V.P.

UNITED WAREHOUSE & TERMINAL CORP.

Warehouse No. 1
137 E. Calhoun Ave.

Warehouse No. 2
138-40 St. Paul Ave.

Memphis Tennessee

Storage (Mds.)—Pool Car Distribution—Local delivery service—Office Space.
In the heart of the wholesale district and convenient to Rail, Truck and express
terminals. Eight car railroad sidings (N.O.A.T.L. and L.A.N.)—Railroad switching.
Represented by Distribution Service, Inc. Member of A.W.A. and M.W.A.

NIT League Meeting

(Continued from page 14)

The laxity of many motor carriers in their handling of loss and damage claims was vigorously condemned by a large number of League members. The ATA was doing its best to cooperate, it was said, but lacked the power to control its members, and had no influence whatever with approximately 25,000 motor carriers not members of the association.

It was predicted that more drastic action on the part of shippers would be necessary to remedy the situation.

Coastal Shipping: A plea to Government that ships used in inter-coastal and coastwise shipping be restored to commerce as soon as practicable was endorsed.

Merchandise Service by Rail Carriers: A committee was authorized to appear before the Railroad Committee and advocate that rail carriers adopt the following eight points:

"1. Established special departments for merchandise traffic. 2. Centralize pick-up in large cities so that one truck will pick up for all carriers. 3. Provide reliable and speedy time in transit. 4. Provide adequate tracing service. 5. Establish co-ordinated rail and highway services. 6. Equip cars with protection against heat or cold, such as 'Port-a-Kold' or refrigerator containers now in use on many lines. 7. Equip cars to prevent damage by the use of bulkheads or other devices. 8. Develop distribution of merchandise schedule information."

Extension of Statute of Limitation: Opposition was voted against any proposals to increase the statute of limitation for action against rail car-

riers with respect to overcharges from two to four years on the grounds there is no need for such extension.

Pick-Up and Delivery of Heavy Articles: The League approved and recommended for universal railroad publication the following:

"Pick-up and delivery service will be afforded railroad shipments which, because of weight, size and character, require in their loading or unloading additional labor beyond that ordinarily furnished on the dray or truck only when

Warnings to Carriers

Long distance motor carriers operating out of Chicago will be kept advised during the winter months of expected severe cold waves or heavy snows in the territories in which their units are operating by the transportation department of the Chicago Ass'n. of Commerce. This department will be notified by the U. S. Weather Bureau when and where severe snow and icing conditions are to be expected. It will relay the warnings by telephone to member motor carriers operating in the affected areas.

This service was tried for the first time last winter and proved to be of such value to the carriers it is being offered again this year. The reports will cover the territory from the Atlantic coast to the Rockies and from the Canadian border to the Ohio river.

124 1ST AVE. N., NASHVILLE 3

BOND, CHADWELL CO.

MERCHANDISE
WAREHOUSE.
RAIL, TRUCK
AND RIVER
TERMINAL.



NASHVILLE, TENN.

521 Eighth Ave., So., Nashville 2

Central Van & Storage Co.

MERCANTILE AND HOUSEHOLD STORAGE
WAREHOUSE STOCK and POOL CAR DISTRIBUTION
Automatic Sprinkler System—Centrally Located

NASHVILLE, TENN.

Nashville Warehousing Co.

P.O. Box 555, Nashville 2

GENERAL STORAGE
POOL CAR DISTRIBUTION
FREE SWITCHING—CITY TRUCKING

NASHVILLE, TENN.

ESTABLISHED 1886

THE PRICE-BASS CO.

194-204 Hermitage Ave., Nashville 2



STORAGE

Automatic Sprinklered—Spot Stock and Pool Car Distribution—
Private Siding

the consignor or consignee furnishes such assistance as may be necessary in the loading or unloading of such articles at their places of business, but not otherwise."

Relaxation of ODT Orders: Although the committee on emergency transportation reported that there is evidence of possible relaxation of some existing ODT orders, a letter from Col. J. Monroe Johnson, director, ODT, was read wherein he stated that "the word 'emergency' is more appropriate today than ever in regard to transportation," and that transportation burdens are likely to increase during the coming months.

Centralized Regulation of Transportation: The League went on record "as favoring the regulation by a single federal agency of rates, classification and charges, services and practices in connection therewith including the granting of certificates of public convenience and necessity and the rate of pay for mail, of all regulated forms of domestic for-hire transportation, including domestic air transportation, and that such regulation shall be entrusted to the Interstate Commerce Commission under proper mandate of Congress."

Inland Waterways: The League endorsed "the principle that user of inland waterway facilities created at public expense and now in existence should pay a reasonable user charge for navigation maintenance and special services or special facilities provided, and that with respect to new projects reasonable user charge should be paid in proportion to the benefit received and navigation maintenance and special services or special

MILLS, TEXAS

INTERSTATE-TRINITY WAREHOUSE COMPANY



301 North Market St., Dallas 2

Merchandise Storage and
Distribution
Household Goods Storage,
Moving & Packing
Long Distance Hauling
R. E. ABERNATHY, Pres.
J. A. METZGER, Vice-Pres.

Represented by
ALLIED DISTRIBUTION INC.

NEW YORK 11 WEST 42ND ST., PHILA. 6-0967

CHICAGO 1525 NEWBERRY AVE., MICHIGAN

DALLAS, TEXAS

SPECIALIZING

MERCHANDISE STORAGE
POOL-CAR DISTRIBUTION

SERVING THE GREAT
SOUTHWEST AREA
EVERY ACCOUNT IS
PERSONALLY SUPERVISED
BY THE MANAGEMENT

KOON-McNATT STORAGE & TRANSFER CO.
1100 CADIZ ST., Dallas 2

CONTRACT OPERATORS FOR ALL RAIL
LINES AND UNIVERSAL CARLOADING &
DISTRIBUTING COMPANY

Over 10,000,000 Pounds of Freight Handled Monthly
for Dallas Shippers



EL PASO, TEXAS

"Bankers of Merchandise"
"Service With Security"

International Warehouse Co., Inc.

1601 Magoffin Ave., El Paso, Texas
Lowest Content Insurance Rate
Fireproof Storage of Household Goods, Autos & Merchandise, State and Customs Bonded. Private Trackage—T. & P. and So. Pac. Ry. Pool Car Distribution—Motor Truck Services. Incorporated in 1920
Members—N.F.W.A.—SWTA—Agent for Allied Van Lines, Inc.



FORT WORTH, TEXAS

In Fort Worth It's Binyon-O'Keefe

MERCHANDISE STORAGE—POOL CAR DISTRIBUTION
Our modern Centrally located Fireproof warehouse is completely equipped to serve you with over 50,000 square feet of merchandise and household storage space.
MOVING—STORAGE—PACKING—SHIPPING



Since 1875
BINYON-O'KEEFE
Tireproof Storage Co.

800 Calhoun St., Fort Worth 1
Associated with Distribution Service, Inc.

Since 1875



FORT WORTH, TEXAS

Agents—ALLIED VAN LINES, INC.



O. K. Warehouse Co., Inc.
255 W. 15th St., Fort Worth 1, Tex.



FORT WORTH, TEX.

Member—SWA-AWA

TEXAS & PACIFIC TERMINAL WAREHOUSE CO.



Warehouses—DALLAS—FT. WORTH
Merchandise Storage
Pool Car Distribution
Offices, Display and
Branch Office Facilities
Ample room for Automobiles and Truck parking
LOW INSURANCE RATES

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

HOUSTON, TEXAS

BINYON-STRICKLAND

WAREHOUSES, INC.

Merchandise Storage — Pool Car Distribution
Centrally Located — Lowest Insurance Rate
Private Siding Southern Pacific Ry. Co.
Goliad & Morin Sts. Houston 13

HOUSTON, TEXAS

Member of Interlake Terminals

FEDERAL WAREHOUSE COMPANY

915 N. San Jacinto St. Houston 2, Texas

General Merchandise Storage

Pool Car Service

Fireproof Sprinklered Warehouses

Located in the heart of the wholesale district

HOUSTON, TEXAS

Better Warehousing in HOUSTON

We operate a modern low insurance rate warehouse in the center of the wholesale, jobber, rail and truck terminal district. Most conveniently located for interline jobbers' trucks; well trained personnel; cooler space.

HOUSTON CENTRAL WAREHOUSE CO.
Commerce and San Jacinto Houston 1, Texas

Represented by
ALLIED DISTRIBUTION INC.
11 WEST 42ND ST., PHILA. 6-0967

CHICAGO
1525 NEWBERRY AVE., MICHIGAN

HOUSTON, TEXAS

Houston Terminal Warehouse & Cold Storage Company

701 NO. SAN JACINTO ST., HOUSTON 2

General Storage Cold Storage U. S. Custom Bonded
A. D. T. Service Pool Car Distribution
Office Space Display Space Parking Space

Lowest Insurance Rate

New York Representative
Phone Plaza 3-1235Chicago Representative
Phone Harrison 1496

HOUSTON, TEXAS

AT HOUSTON

Receiving
Weighing
Sampling
Warehousing
Forwarding
. also Wharfingers offering complete Shipsides Services with berthing space for eight steamers.

HOUSTON WHARF CO.

(Long Reach Docks)

OWNED AND OPERATED BY GULF ATLANTIC WAREHOUSE CO.
P. O. Box 2588

Houston 1, Texas

HOUSTON, TEXAS

PATRICK TRANSFER & STORAGE CO.

Merchandise and Household Goods Storage

Pool Car Distribution
Sprinklered—A.D.T. Watchmen
Shipsides and Uptown Warehouses

Operators—Houston Division

Lone Star Package Car Co.

1117 Vine St. Agents for Allied Van Lines, Inc.

Members N.F.W.A.
State and Local Assn.

HOUSTON, TEXAS

MERCHANDISE DISTRIBUTION

COMMERCIAL STORAGE—OFFICE SPACE—PARKING SPACE

T. P. C. STORAGE & TRANSFER CO., INC.

2301 Commerce Ave., Houston 2

HOUSTON, TEXAS

W. E. FAIN, Owner and Manager
Established 1901

TEXAS WAREHOUSE COMPANY

Forty-three Years
Under Same Continuous Management

MERCHANDISE EXCLUSIVELY

Pool Car Distribution Sprinklered Throughout
A.D.T. Supervised Service

D and W, December, 1944—107

TEXAS—UTAH—VIRGINIA

HOUSTON, TEXAS

UNION Transfer & Storage Co.
1112 Vine St., P.O. Box 305, Houston 1
Forwarding and Distributing
MERCHANDISE STORAGE
Warehouses Sprinklered, Throughout.
Supervised by A.D.T. Service.
SERVICE THAT COUNTS

Agent for Allied Van Lines, Inc.

HOUSTON, TEXAS

UNIVERSAL TERMINAL WAREHOUSE CO.
1006 WASHINGTON AVE., HOUSTON 1
Merchandise Storage—Pool Car Distribution
Sprinklered—A.D.T. Watchmen
— U. S. Customs Bonded —
— Office Space —
New York Representatives: Chicago Representatives:
DISTRIBUTION SERVICE, INC. DISTRIBUTION SERVICE, INC.
2 Broadway (4) 219 E. North Water St. (11)
Members A.W.A. and State and Local Associations.

HOUSTON, TEXAS

WESTHEIMER Transfer and Storage Co., Inc.
2205 McKinney Ave., Houston 1
OVER 50 YEARS IN HOUSTON
Merchandise & Household Goods Storage—Pool Car Distribution—
Lift Van Service—20 car lengths of truckage.
Fireproof Warehouses—A.D.T. Automatic Fire and Burglary Protection.
Agent for Allied Van Lines, Inc. Members N. F. W. A.
State and Local Assn.

BENJ. S. HURWITZ, Pres.

SAN ANTONIO, TEXAS

MERCHANTS Household Goods
TRANSFER & STORAGE CO.
Merchants & Transfer Sts., San Antonio 6
Complete Storage and Distribution Service
Over 30 years of satisfactory service
Member of A.W.A.—N.F.W.A.—S.W.A.

SAN ANTONIO, TEXAS

Muegge-Jenull Warehouse Co.
BONDED FIREPROOF
POOL CAR DISTRIBUTORS
STORAGE AND DRAYAGE
Dependable Service Since 1913

SAN ANTONIO, TEXAS

Agent for Allied Van Lines, Inc.

Scobey Fireproof Storage Co.
311-339 North Medina St., San Antonio 7
HOUSEHOLD - MERCHANTS - COLD STORAGE -
CARTAGE
DISTRIBUTION
INSURANCE RATE - - - 10c
Members of 4 Leading Associations



SAN ANTONIO, TEXAS

SOUTHERN TRANSFER & STORAGE CO.
P. O. BOX 4097, STA. A, SAN ANTONIO 7
Specialists in Merchandise Distribution
FIREPROOF CONSTRUCTION
BONDED STORAGE

Represented by
NEW YORK ALLIED VAN LINES, INC. CHICAGO
11 WEST 43RD ST. PHILADELPHIA 6-C687 1555 NEWBERRY AVE. MONROVIA

TYLER, TEXAS

TYLER BONDED WAREHOUSE & STORAGE COMPANY
Established in 1923
Bonded under the Laws of Texas
General Storage and Distribution from the Center of East Texas.
Specializing in Pool Car Distribution and Merchandise
Warehousing.

J. F. WOMACK, Owner & Manager

Shuttle System Ends Bottleneck

In effect, the truck-trailer shuttle system serves to extend factory conveyor lines out of the plant and over the roads.

NATIONAL SCREW & MFG. CO., Cleveland, Ohio, one of the oldest and largest firms in its field, is turning out millions of screws, nuts, bolts and rivets every day to meet industry's

pressing demands for all kinds of metal fasteners. Shortly after Pearl Harbor production at National skyrocketed to unprecedented levels, and officials found themselves faced

Loading dock at National Screw & Mfg. Co., Cleveland



108—D and W, December, 1944

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

with a serious "bottleneck" in the movement of processed materials from the company's mill to the main plant, a mile away.

Thousands of coils of wire which are drawn and annealed at the mill must be kept flowing into the factory with time-table precision. Increased production placed a strain on the inadequate dock facilities at the mill. Dock space was so cramped that only small trucks could be used, and only one truck could be accommodated, while others stood outside waiting to be loaded. Something had to be done.

Production officials first investigated the possibility of moving the mill equipment into the main factory, but this wasn't practical for several reasons. Machining operations were already crowding the plant to capacity. The main factory had no railroad siding for some of its incoming raw materials. It was found that the idea of bringing in a spur track was entirely out of the question since the cost would have been prohibitive.

The company then called in a Fruhauf transportation engineer who suggested a solution to the problem: one new dock, one medium-sized truck and three trailers, operating on a "shuttle" system.

Like thousands of others in different kinds of business, National discovered that, with proper loading facilities, one truck and driver could handle three trailers, thus could replace several trucks and still do the job better than it could be done by any other method.

Traffic appliance division, General Electric Co., has been separated into heating device and fan divisions, with M. B. Ross, formerly sales manager, traffic appliance division, as manager; and the clock division, with R. O. Pickles, formerly in traffic appliance sales, as manager. George E. Mullin, Jr., has been named sales manager, electric sink and cabinet division; R. E. Boian, sales manager, heating devices; C. R. Thorsen, sales manager of clocks.

George A. Keates, treasurer and chairman of the Warehouse Industry Advisory Committee, Canadian Warehousemen's Assn., has severed his connection with Terminal Warehouses, Ltd., Toronto, Ontario, and become associated in the ownership and management of Manitoba Cartage and Warehousing Co., Ltd., Winnipeg, Manitoba.

Fred B. Smale, with United States Plywood Corp. for 12 years, has been appointed manager of the corporation's newly formed California sales division. Don L. Braley, sales division, six years, was named manager of the San Francisco distributing unit; Don L. Kesseler, also with the company several years, named manager, distributing unit at Oakland, Cal.; John D. Patruquin, sales representative in San Francisco, is to be resident manager in Fresno.

Officers and committee chairmen installed by Raritan Traffic Club are: A. J. Kroll, president; V. Paulson, vice-president; M. Stoll, secretary; E. J. Peterson, treasurer; R. D. Dameo, C. L. Rosanagel, C. W. Vosskuhler, Board of Governors; E. T. Gass, constitution and by-laws; J. M. Hayes, membership; A. Markowitz, traffic; A. McNeill, educational; O. G. Perry, entertainment; J. J. Tortorice, publicity and welfare.

Louis F. Simon, formerly associated with the general sales and bond departments, Schenley Distillers Corp., has been appointed mid-Atlantic regional manager, Joseph S. Finch & Co., an affiliate of Schenley.

Carl F. LaMarche, president, Marion Steam Shovel Co., Marion, O., has resigned. He is also president, American Malleable Castings Co., Marion, O.



People . . .

Edward F. Pritzlaff, Milwaukee, has been elected president, National Wholesale Hardware Assn. He succeeds Fay F. Thompson, Sacramento, Cal.

Maurice R. Goodwin, Spokane, Wash., owner and head, Goodwin Moving and Storage Co., has been elected vice-president, Washington State Warehousemen's Assn.

Leroy A. Wilson, former assistant vice-president, American Telephone and Telegraph Co., commercial division, has been elected a vice-president in charge of business research and Bell System revenue requirement studies.

Charles H. Slaughter has been named national sales manager, Thomas Machine Mfg. Co., Pittsburgh. He was formerly an engineer and designer, American Steel and Wire Co., Carnegie-Illinois Steel Corp., and Jones and Laughlin Steel Corp. (Kline)

Ralph R. Brubaker, western division sales manager, Carnation Co., located in Seattle, Wash., has been advanced to general sales manager; headquarters at Milwaukee. He is succeeded by Hal A. Laing, who has been divisional supervisor. (Haskell)

Ernest L. Hughes, president, Hughes Oil Co., Chicago, and recent director of marketing, Chicago, for Petroleum Administration for War, has been made a special assistant to Harry F. Sinclair, president, Sinclair Oil Corp., New York. (Kline)

Frank Kearney has been elected president of the Traffic Club, Newark, N. J. He is assistant sales manager of Lehigh Warehouse & Transportation Co., Inc., Newark, and sales manager of Lackawanna Warehouse Co., Inc., Jersey City, N. J., a combination of warehouses known as the Lehigh and Lackawanna Warehouse Service. He is active in trade associations in the east, and has headed various committees to further better warehousing. Recently he was elected vice-president of the Jersey City Traffic Club and is a member of its Board of Governors.

B. F. Towne, formerly Chicago district sales manager, Harrower Laboratory, Inc., Glendale, Cal., recently acquired by the Lambert Co., has been named assistant general sales manager, sales and distribution, in the Middle West and on the Eastern seaboard. (Kline)

B. Brewster Jennings, president and executive committee chairman, Socony-Vacuum Oil Co., has been elected a vice-president, Chamber of Commerce of the State of New York, to fill the vacancy left by the late John A. Brown, who was president of Socony-Vacuum.

Metropolitan Traffic Assn. of New York, Inc., has elected Otto Birnbrauer, Minneapolis & St. Louis Ry. Co., president; Al Clodfelter, U. S. Industrial Alcohol Co., first vice president; J. J. Lenahan, Canadian Pacific Ry., second vice president; J. B. Sondey, American Smelting & Refining, secretary; V. P. Golden, Union Bag & Paper Co., treasurer; V. J. Welch, Illinois Central System, financial secretary.

Joseph D. Besant is now traffic manager in charge of new traffic promotion, John I. Hay Co., barge line organization. He was with Furness, Withy & Co. for 18 years.

OGDEN, UTAH

MEMBER OF A.W.A.

WESTERN GATEWAY STORAGE CO.

GENERAL WAREHOUSING

POOL CAR DISTRIBUTION

MERCHANDISE AND COLD STORAGE

SALT LAKE CITY, UTAH

CENTRAL WAREHOUSE

520 West 2nd South St., Salt Lake City 1
Fireproof Sprinklered

Insurance rate 18c. Merchandise Storage.
Pool Car Distribution. Office Facilities.

Member A. W. A.

SALT LAKE CITY, UTAH

Merchandise Storage and Distribution

Over 1,000,000 cubic feet reinforced Concrete Sprinklered Space

Insurance Rate 11 Cents

CORNWALL WAREHOUSE CO.

353 West 2nd South St., Salt Lake City 1

Represented by
DISTRIBUTION SERVICE, INC.
New York - Chicago - San Francisco

SALT LAKE CITY, UTAH

Storage - Pool Car Distribution

KEYSER MOVING AND STORAGE CO.

328 West 2nd South, Salt Lake City 1 Est. 1910

72,000 sq. ft. space. Reinforced concrete and brick. Dignified, accessible, and central location. U.P. spur with free switching from or to other lines. P-UAD service rail or truck. Systematic delivery service twice daily. 90% Co-In. rate 15% per \$100.00. A.D.T. automatic burglar and fire protection. Office and desk space available.

Member A.W.A.—U.V.L.—U.W.A.—A.W.I.

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

SALT LAKE CITY, UTAH

"This is the Place"

FOR BETTER SERVICE SECURITY STORAGE & COMMISSION CO.

230 S. 4TH WEST ST., SALT LAKE CITY 1

Over 38 Years' Experience

Merchandise Warehousing - Distribution

Sprinklered Building - Complete Facilities

Lowest Insurance Cost - A.D.T. Watchman Service

Office Accommodations - Display Space

Represented by American Chain of Warehouses, Inc.

New York (17)

Chicago (4)

250 Park Ave.

33 W. Jackson Blvd.

MEMBER:
A.W.A.—U.W.A.

NORFOLK, VA.

HOUSEHOLD AUTOMOBILE STORAGE MERCHANDISE

NEW-BELL STORAGE CORPORATION

23rd St. & Monticello Ave.

NORFOLK 10, VIRGINIA

MODERN SPRINKLER EQUIPPED WAREHOUSE

50,000 SQUARE FEET PRIVATE RAIL SIDING

Lowest Insurance Rate in Norfolk. Pool Car Distribution

WE SPECIALIZE IN MERCHANDISE STORAGE

AND DISTRIBUTION AGENTS AERO MAYFLOWER TRANSIT COMPANY

Member N.W.A. & S.W.A.

NORFOLK, VA.

Serving—Va. Beach, Ft. Monroe, Newport News, Williamsburg and Tidewater, Virginia.

Security Storage and Van Co.

530 FRONT STREET

Norfolk's First Fireproof Furniture Warehouse

Motor Van & Lift Van Service

Collections — Distribution

Member—N.W.A.—ALLIED VAN LINES

D and W, December, 1944—109

VIRGINIA—WASHINGTON

NORFOLK, VA.

Established 1892

**SOUTHGATE
STORAGE COMPANY, Inc.**

239 Taxewell St., Norfolk 10



MEMBER:
A.C.W.
A.W.A.
S.W.A.
U.S.C.W.C.

Write for Booklet—"7 POINT DISTRIBUTION"

66 Years of Uninterrupted and Expert Service

BROOKS TRANSFER and STORAGE CO., Inc.
1224 W. Broad Street, Richmond 3, Va.

Three Fireproof Storage Warehouses—510,000 Cubic Feet Floor Space—Automatic Sprinkler System—Low Insurance Rates—Careful Attention to Storage—Packing and Shipping of Household Goods—Private Railroad Siding—Pool Car Distribution—Motor Van Service to All States—Freight Truck Line.

Member of N. F. W. A.—A. V. L.—A. T. A.

RICHMOND, VA.

STORAGE
HOUSEHOLD
GOODS
OBJECTS OF ART
FURS - RUGS
VALUABLES

**THE W. FRED. RICHARDSON
Security Storage Corporation**
Main at Belvidere, Richmond 20
PACKING FOR SHIPMENT
Local and Long Distance Movements
ESTABLISHED 1897
Agent for Allied Van Lines, Inc.

E. F. Steen and Roy Long have been elected president and vice president-general manager, respectively, of System Freight Service, Los Angeles. (Herr)

Lt. Col. Charles B. Whitehead, until recently on active duty with the U. S. Army, has been named South American representative, Sterling Engine Co., Buffalo, N. Y. (Kline)

A. R. (Andy) Current has resigned as storage section chief, Shipping and Storage Branch, Office of Distribution, War Food Administration. He plans to return to private industry. B. C. Guthrie, who has been with the Shipping Section and with the FSCC for some years, is now acting chief of the Storage Section. J. E. Salisbury, formerly with Shipping and Storage Branch, WFA's Office of Distribution, has been designated chief, Lend-Lease Operations, in charge of transportation and storage, priorities, inspection, and expediting activities.

H. Richard Stickel has been appointed division director, property operations, ODT's Department of Highway Transport.

Dewey Poulsen has been named personnel and safety director, Valley Motor Lines, Fresno, Cal. He formerly was with Mohawk Petroleum Co., Bakersfield, Cal. (Herr)

California State Council, American Assn. of Traffic Management, meeting in Los Angeles, Cal., elected for 1944-45: president, Frank H. Powers, Los Angeles, Cal.; general traffic manager, Sears, Roebuck & Co., Pacific Coast division; first vice president, George D. Cron, traffic manager, General Motors Co., Oakland, Cal.; secretary, Ross E. Anderson, assistant manager, Wells Fargo Carloading Co., Los Angeles, Cal.; treasurer, J. R. McIntyre, general manager, Coast Carloading Co., Los Angeles, Cal.; regional vice presidents: San Diego, Cal., Virgil B. Windle, general manager, San Diego Forwarding Co.; San Francisco, Cal., A. C. Street, traffic manager, Safeway Stores, Inc., Oakland; Sacramento, Cal., W. G. Stone, manager, trans-

portation department, Sacramento Chamber of Commerce; San Joaquin, Cal., J. C. Sommers, manager, transportation department, Stockton Chamber of Commerce. (Herr)

H. B. Higgins, president, Pittsburgh Plate Glass Co., has been elected president also of the Pittsburgh Corning Corp., replacing the late H. S. Wherrett. R. L. Clause, vice chairman, Pittsburgh Plate, was named vice president of Pittsburgh Corning, which is owned equally by Corning Glass Co. and Pittsburgh Plate. (Kline)

Mt. Vernon Car Mfg., Mt. Vernon, Ill., division of H. K. Porter Co., Inc., Pittsburgh, Pa., announced appointment of George Green as vice president in charge of sales.

Officers, directors elected at 21st annual convention, Missouri Warehousemen's Assn., are: Frank H. Cole, Radial Warehouse Co., No. Kansas City, Mo., general president; Morris M. Stern, Mid-West Terminal Warehouse Co., Kansas City, Mo., general secretary-treasurer; Merchandise Division, O. S. Anderson, Adams Transfer & Storage Co., St. Louis, Mo., president; C. J. LaMothe, St. Louis Terminal Warehouse Co., St. Louis, Mo., vice president; R. R. Lester, Merchandise Warehouses, Inc., Kansas City, Mo., secretary-treasurer; W. F. Long, S. N. Long Warehouse Co., St. Louis, Mo.; R. F. Wallace, Crooks Terminal Warehouse, Inc., Kansas City, Mo.; Burke Holbrook, General Warehouse Co., Springfield, Mo., directors; Household Goods Division, W. E. Lee, Geitz Moving & Storage Co., St. Louis, Mo., president; Russell D. Bray, Monarch Transfer & Storage Co., Kansas City, Mo., vice president; H. A. Prosser, Prosser Moving & Storage Co., St. Louis, Mo., secretary-treasurer; Harry A. Dale, W. E. Murray Transfer & Storage Co., Kansas City, Mo.; J. E. Perky, Perky Bros. Moving & Storage Co., Kansas City, Mo.; C. W. Peters, Ascole Moving & Storage Co., St. Louis, Mo., directors.

Ernie Sharp, who has been on special war service in New York City, has returned to

RICHMOND, VA.

Established 1908

**VIRGINIA BONDED WAREHOUSE
CORPORATION**

1700 E. CARY ST., RICHMOND 3, VA.



160,000 SQ. FT.
SPACE

BUILDINGS
SPRINKLERED

U. S. BONDED
& PUBLIC
WAREHOUSES
MERCANDISE
STORAGE &
DISTRIBUTION

INSURANCE
RATES
20c PER \$100
PER YEAR

ROANOKE, VA.

H. L. LAWSON & SON

*Finance and Storage
Pool Car Distributors
General Merchandise Storage*

421-25 EAST CAMPBELL AVE.
ROANOKE 7, VIRGINIA

ROANOKE, VA.

ROANOKE PUBLIC WAREHOUSE

369 W. Salem Ave., W., Roanoke 5

Capacity 500 Cars

Private Railroad Siding

Automatic Sprinkler
Accurate Accounting

We make a Specialty of Storage and Pool Car Distribution for Agents, Brokers and General Merchandise Houses.
Member of American Chain of Warehouses

United Fruit Co.'s Chicago office as western freight agent.

William H. Kauffmann has been appointed assistant to chief engineer in charge of diesel engine development for Mack Trucks.

Ralph Bentley, general traffic manager, National Tea Co., has been named chairman, Chicago District, ODT, private carrier advisory committee.

John J. Nash, Illinois commissioner, motor vehicles for the last 10 years and president last year, Association of Motor Vehicle Administrators, has resigned his state post. He is temporarily succeeded by George R. Moore, acting chief clerk.

Bennett Bond, secretary-manager, Associated Motor Carriers, Oklahoma, has resigned to become affiliated with White Truck Sales Co., Tulsa. (M. L. Rises)

Willis Day, of Willis Day Storage Co., Mayflower agent, Toledo, Ohio, recently marked his 15th year in the storage business.

G. E. Siedle has been named export sales manager, H. J. Heinz Co., which he recently rejoined after service with the Canadian Army. (Kline)

Frederick John Knack has been appointed vice president in charge of engineering, Locomotive Airplane Corp., Trenton, N. J.

W. T. McCargo has been named Eastern regional sales manager, The Carborundum Co., Niagara Falls, N. Y., succeeding F. Jerome Tote, Jr., who has been named vice president in charge of sales.

Henry J. Kaiser has been named chairman, new transportation committee of the China-America Council. Working with the committee are representatives of 42 transportation, economic and industrial experts of the Government of China, appointees of Dr. H. H. Kung, Chinese minister of finance. (Gidlow)

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

Harrison A. Roddick, marketing consultant, and Alf E. Werolin, manufacturing consultant, have become general partners, McKinsey & Co., management consultants, New York City, Boston and San Francisco.

Chas. R. Page has been elected to fill a vacancy on the board of directors, American president Lines. He is a past president, Fireman's Fund Insurance Co. and chairman of its board of directors since 1943. He is president of the San Francisco Fire Commission. (Gidlow)

C. S. Decker has been appointed general manager, traffic department, Borden Co. Mr. Decker joined the company in 1918, and succeeds the late Ernest Hadley.

J. R. Shoemaker, associate division director in charge of refrigerated warehousing, has also given up full-time ODT affiliation, but

will remain as consultant on refrigerator storage problems.

William E. F. Conrad has been named assistant to E. A. Meyer, chief of the Fruit and Vegetable Branch in the Office of Distribution.

Col. Leo M. Nicolson, division director in charge of storage, ODT, has returned to private business and has been succeeded by Samuel G. Spear, associate division director.

At the annual stockholders meeting, of Air Lines Terminal, Inc., Herbert J. Lyall, eastern traffic manager, American Airlines, was elected president. D. A. O'Connor, northern division manager, Eastern Air Lines, was elected vice president, and W. S. Allen, manager, Terminal Corp., was re-elected secretary-treasurer.

N. S. von Phul, president, Scobey Fireproof

Storage Co., San Antonio, Tex., was elected president, Southwest Warehouse and Trans-fermen's Assn. during the 27th annual conference, Fort Worth, Tex. Other officers are: honorary vice president, Seth Davis, Joe Hodges Fireproof Whee, Tulsa, Okla.; 1st vice president, Dan J. Dalberg, Wotheimer Trans. & Steg., Houston, Tex.; 2nd vice president, J. A. McCaul, T & P Terminal Whee, Co., Ft. Worth, Tex.; vice president for Ark., S. J. Bouchamp, Jr., Terminal Van & Steg. Co., Little Rock, Ark.; vice president for La., Ivey Faulk, Faulk-Collier Boarded Whee, Monroe, La.; vice president for N. M., Jack Dalton, Dalton Trans. & Steg., Albuquerque, N. M.; vice president for Okla., Curtiss Robertson, Public Whee, Co., Oklahoma City, Okla.; vice president for Tex., Wm. C. Boyce, Armstrong Trans. & Steg., Amarillo, Tex. Directors: Above officers and Chester E. Bradley, chairman of board, Dallas Transfer & Terminal Whee, Dallas, Tex.; L. L. Schewe, Universal Term. Whee, Co., Houston, Tex.; Roy Wilson, Roy Wilson

ABERDEEN, WASH.

Established 1916

A. A. STAR TRANSFER CO., Inc.

321 W. STATE ST.

Merchandise & Household Goods Storage



Private siding. Pool car distribution. Consign shipments via any railroad. Open yard storage. Long distance moving.

Member of A.W.A.—May.W.A.



SEATTLE, WASH.

EYRES TRANSFER & WAREHOUSE CO.

A Seattle Institution—55 years of outstanding service
2203 First Ave. So., Seattle 4

Cartage — Distribution — Storage
Highest financial rating; new fireproof, A.D.T. sprinklered buildings; lowest insurance rate (10.2¢); modern equipment.
"The Shippers' Open Door to Alaska and the Orient"

SEATTLE, WASH.

LET LYON GUARD YOUR GOODS



Carload
Distributors

PORLTAND, Ore. SEATTLE
2111 N. W. Westover Rd., 2030 Denny Ave.
Walter Hollings, Mgr. Dean McLean, Mgr.

SEATTLE, WASH.

J. R. GOODFELLOW, Pres.

OLYMPIC WAREHOUSE & COLD STORAGE CO.

MERCHANDISE STORAGE & DISTRIBUTION

1203 Western Avenue

Seattle 1, Wash.

Cold Storage — Dry Storage — Rentals — Pool Car Distribution — Office Rentals
Fireproof, brick const.; Sprinkler system; Insurance rate: 12.5c. Billing connects
with all rail lines.

Bonded U. S. Customs: State License No. 2

Member of A.W.A. (C.S.) Wash. State Wshsm. Assn.

SEATTLE, WASH.

Seattle's One-Stop Warehousing Service



UNITED

Merchandise Storage & Distribution

U. S. Customs—See Stores

CULBERTSON

Merchandise

Seattle's Exclusive Furniture Repository

SEATTLE TERMINALS, Inc.

Executive Offices: 1017 E. 40th St., Seattle 5

R. G. Culbertson, President

Wm. T. Laube, Jr., Secretary

SEATTLE, WASH.

Lloyd X. Coder, Pres.-Mgr.

Est. 1919

SYSTEM Transfer & Storage Co.

2601-11 Second Avenue, Seattle 1

Warehousemen & Distributors of

General Merchandise and Household Goods

Office and Desk Space—Low Insurance Rates

Member—A.W.A.—W.S.W.A.—N.F.W.A.—S.T.O.A.

For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

SEATTLE, WASH.

TAYLOR-EDWARDS WAREHOUSE & TRANSFER CO., INC.

Seattle 4

WAREHOUSING • DISTRIBUTION • TRUCKING

Represented By
DISTRIBUTION SERVICE, INC.
New York—Chicago—San Francisco

SPOKANE, WASH.

The SPOKANE TRANSFER & STORAGE CO.

308-316 PACIFIC AVE.

THE INLAND EMPIRE'S LARGEST DISTRIBUTORS

MEMBERS: AWA—ACW—WSWA

TACOMA 2, WASHINGTON

AMERICAN WAREHOUSEMEN'S ASSOCIATION

PACIFIC STORAGE WAREHOUSE & DISTRIBUTING CO.

Tacoma 2

A Complete Merchandise Warehouse Service
DRAYAGE — STORAGE — DISTRIBUTION

TACOMA'S Merchandise Warehouse and

Pool Car Distributors

Member AWA—ACW—Wash. State Assn.

TACOMA, WASH.

TAYLOR-EDWARDS WAREHOUSE & TRANSFER CO., INC.

Tacoma 2

WAREHOUSING • DISTRIBUTION • TRUCKING

Represented By
DISTRIBUTION SERVICE, INC.
New York—Chicago—San Francisco

TACOMA, WASH.

TERMINAL WAREHOUSES, INC.

MDSE. WAREHOUSING and DISTRIBUTION

Concrete and Steel Warehouses located on N.P.R.R. Tracks. Close to all Railway and Motor Freight Terminals. Special Lockers for Salesmen's Samples.

Swift and Frequent Service to Fort Lewis, McChord Field and Bremerton Navy Yard

P. O. BOX 1157 — TACOMA 1, Wash.

D and W, December, 1944—111

WEST VIRGINIA—WISCONSIN—CANADA

HUNTINGTON, W. VA.

Every facility for you and your patrons' convenience to secure your share of this Five Hundred Million Dollar market is available through

THE W. J. MAIER STORAGE COMPANY
1100 Second Ave., Huntington 10

WHEELING, W. VA.

W. W. KENAMOND, Owner

WARWOOD TRANSFER CO.

Office: 133 No. 21st Street

Warehouses: 2233-35-37-39-41 Warwood Avenue
Household Goods Storage—Packing—Shipping
Individual Storage Vaults—Safe Above Floods
Member Ind. Movers' & Warehousemen's Assn.

APPLETON, WIS.

Owner, Harry H. Long

Est. 1920

HARRY H. LONG MOVING & STORAGE MERCHANTISE - HOUSEHOLD GOODS - MOTOR FREIGHT

Pool Car Distribution Sales Representation
Brick building equipped for economical storage and distribution. Reached by C&NW — SOO-CM&StP.
Motor Freight Terminal Members of WisW.A.—N.F.W.A.

115 So. Walnut St.

GREEN BAY, WIS.

Established 1903

LEICHT TRANSFER & STORAGE CO.

Main Office:

123 So. Broadway
Green Bay, Wis.

New York Office:

Interlake Terminals, Inc.
271 Madison Ave. (16)

Marinette Office:

1720 Pierce St.
Marinette, Wis.



Complete local and over-the-road truck services with 70 units of all types of equipment, including low-bed trailers, winches and cranes.

Aero-Mayflower moving and storage. Inquiries invited

MADISON, WIS.

LOW INSURANCE RATE

CENTRAL

STORAGE AND WAREHOUSE COMPANY

COLD STORAGE

DRY STORAGE

FREEZER STORAGE 612 W. Main St., Madison 3

Trans. & Whse. Co., Longview, Tex.; Harry Rogers, Rogers Trans. & Ste. Co., Galveston, Tex.; Ross Hodge, O. K. Trans. & Ste. Co., Oklahoma City, Okla.

Operating department and personnel of the Alaska Steamship Co., Seattle, Wash., having recently been reorganized, many new appointments have resulted in the company that is general agent for a large fleet of passenger and freight vessels for the War Shipping Administration. Charles N. Goodwin has been chosen Port Captain; M. W. Felton, port engineer; George Tonte, assistant port engineer, and W. C. Hubbard, port steward. (Littlejohn)

Lt. Col. Clem D. Johnston, former vice president, U. S. Chamber of Commerce and also of AWA, Merchandising Div., has returned to this country from his assignment of duty in China and will be placed on "inactive status" as a reserve officer at the expiration of his terminal leave.

Joseph A. Quinlan, formerly traffic manager, St. Regis Paper Co., New York City, has been elected vice president and traffic manager. (Kline)

J. P. Foley, former senior transport specialist in the ODT's Pacific Coast regional office, has resigned to join the staff of California Truck Rental Co., Oakland, Calif. (Herr)

A. B. Compton, Jr., Lincoln Storage Co., Dayton, O., resigned as president, Ohio Furniture Warehousemen's Assn.

Braniff Airways has organized a new air mail and air cargo division of the traffic department. Guy M. Springer, Jr., assistant to Charles E. Beard, vice president in charge of traffic, has been named head of the new service. (Kline)

R. A. McCorkle, with the sales division, Goodyear Tire and Rubber Co., Akron, O.

"Store American"

AMERICAN WAREHOUSE CO.

House No. 1 and General Office
525 East Chicago St. • House No. 2
302 North Jackson St.

LICENSED AND BONDED SPECIALISTS IN MERCHANTISE

STORAGE, DISTRIBUTION AND FORWARDING

1. Central Wholesale District Location
2. Local Delivery Service Daily
3. Negotiable Warehouse Receipts Issued
4. Burglary Protection: Bonded Employees
5. Complete Warehouse System
6. Service Minded

Private Siding—Chicago and North Western Railway—3rd Ward District

MILWAUKEE, WIS.

COMPLETE WAREHOUSING AND DISTRIBUTION SERVICE

GENERAL AND U. S. CUSTOMS BONDED STORAGE



ATLAS STORAGE

DIVISION OF P&V-ATLAS INDUSTRIAL CENTER INC.
647 W. VIRGINIA ST. MILWAUKEE 1, WIS.

MILWAUKEE, WIS.

ESTABLISHED 40 YEARS



850 Foot Dock

126 N. Jefferson St.,
Milwaukee 2
Largest in Wisconsin

18 Warehouses

A.D.T. Service

Specializing in—
Merchandise Distribution
and Complete Branch House Services

TRACK CAPACITY FOR 50 CARLOADS
DEPENDABLE EXPERT QUICK SERVICE

MILWAUKEE, WIS.



LINCOLN

FIREPROOF WAREHOUSE CO.

WAREHOUSE SERVICE RAILROAD SIDINGS
OF EVERY AND
DESCRIPTION DOCKING FACILITIES
LOCATED IN HEART OF BUSINESS DISTRICT

Offices: 206 W. Highland Ave., Milwaukee 3

Member of A.W.A.—W.W.A.—N.F.W.A.

for many years, has been named manager, new eastern seaboard division, representing the firm throughout the east in its export affairs. (Kline)

Pennsylvania-Central Airlines has announced appointment of Jack Ruhl, Detroit, and Vern R. Mutton, Bay City, Mich., as members of its traffic department.

Alfred W. Hunt has been named Chicago regional service manager. The White Motor Co.'s Lon A. Fleener, who was transferred to the position of director, industrial relations to handle wartime personnel problems, has been returned to his post as manager, wholesale division; Thomas H. Parramore, veteran of the automotive field and for past two years a lieutenant colonel, Signal Corps, has been released by the Army to resume his position as Pacific Coast regional service manager for White; Henry G. Geohring, former assistant director, industrial relations, White, has been advanced to director.

OBITUARY . . .

Daniel Hegeman Burdett, 77, founder, president of freight-forwarding firm bearing his name, New York City. Member of New York Yacht Club.

Dickerson Naylor Hoover, 64, supervising inspector general, Commerce Dept. steamboat inspection service. In government service 40 years; brother of J. Edgar Hoover, FBI Director.

Lt. Col. Leslie B. Cooper, 50, helicopter expert; in plane crash near Pennville, N. J. Forces vice-president, Giro Associates, New York; also associated with Curtiss-Wright Flying Service, Pitcairn-Larsen Autogiro Co., Inc., Kellett Autogiro Co. and crop dusting service, Department of Agriculture.

Capt. Herbert W. Sussmann, marine surveyor who plotted the course for Rear Admiral Richard E. Byrd's transatlantic flight, 1927; at his home, Kenmore, N. Y.

Howard R. Sliter, 58, examiner of transportation, ODT; at Milwaukee, Wis. Formerly in the security business, served as secretary, Barzen Transportation Co. and the Trans-American Freight Lines; traffic manager, Keehni Motor Transport Co. Member, Milwaukee Traffic Club.

F. M. Perryman, Sr., Red Arrow Motor Freight Lines agent, Austin, Tex., division.

John Thomas Tierney, 61, Pittsburgh, president, Koppers United Co.; chairman of board, executive committee member and trustee, Eastern Gas and Fuel Associates, affiliated with Koppers.

Frederick T. Smith, Braintree, Mass., retired, foreign traffic agent for New York, New Haven & Hartford Railroad. (Wellington)

Capt. Chris Greene, 48, Cincinnati, O., vice-

president, treasurer, Greene Line, and well-known steamboat man. (Kline)

H. Parke Thornton, 48, vice-president, controller, White Motor Co., Cleveland, O. Prominent in the accounting field as advisory board member and former vice-president, Controllers Institute of America; member of Advisory Committee on Government Questionnaires, U. S. Bureau of the Budget; Federal Taxation Committee, Cleveland Chamber of Commerce.

William J. Cook, 60, in charge of planning, construction of expanding Port of Embarkation, Seattle, Wash. Prominent in shipping, shipbuilding circles of Puget Sound. During World War I was chief inspector, U. S. Shipping Board; later hull superintendent, Seattle North Pacific Shipbuilding Co., and construction superintendent, Pacific Coast Steamship Co. (Litteljohn)

Carl A. Isberg, 47, warehouse manager, Young Bros. Storage & Transfer Co., Denver, Col., after a long illness. (Alexander)

J. D. Jacob, Onley, Va.; formerly connected with Eastern Shore of Virginia Produce Exchange; organizer, manager, Beaufort (S. C.) Truck Growers Assn. and Sanford (Fla.) Celery Growers Exchange.

William A. Salmen, 71, special representative to vice president and general manager, Los Angeles Union Terminal, Inc., which he had been identified with since 1927. Formerly with Chicago & Northwestern Railroad, Pacific Electric Lines, Revaluation Dept., ICC.

S. J. Beauchamp, Sr., president, manager and operating executive, Terminal Van & Storage Co., Little Rock, Ark., at Little Rock.

B. Frank Johnson, former secretary-manager, Southwest Warehouse and Transfermen's Assn. and recently secretary-manager, Houston Freight Carriers' Assn., at Fort Worth.

L. C. Bostwick, 68, eastern traffic manager, Wabash Railroad, New York office. He was

a member of the New York and Philadelphia Traffic Clubs; Whitehall Club, New York Railroad Club; Echo Lake Country Club, Westfield, N. J.

George R. Browder, 75, traffic manager, Fibre Box Assn., Chicago. He had been traffic manager of the association and its predecessor group for 31 years.

Harry B. Day, 81, New York Produce Exchange member since 1882; former head of H. B. Day & Co.; Montgomery and Day firm and one time manager, Erie Railroad Co.'s grain department.

Arthur M. Donnett, manager of the Exporters and Traders Warehouse Co., Hillsboro, Tex.

George A. Martin, 78, chairman, Sherwin-Williams Co., Cleveland. He joined Sherwin-Williams in 1891, becoming manager of the western division in 1898. In 1906 he was transferred to the company's headquarters in Cleveland and placed in charge of the auxiliaries department. (Kline)

George M. Graham, 67, formerly associated with Studebaker Motor Co., Pierce-Arrow, Chandler, Willys-Overland and Rockne in executive capacities. He was active in development of highways, safety measures, tax matters, etc.; often spoke at New York automotive shows.

Thomas Midgley, Jr., 55, American Chemical Society president and Ethyl Corp. and Kinetic Chemicals, Inc., official. Mr. Midgley discovered anti-knock properties of tetraethyl lead. Held Priestley Medal of American Chemical Society; Willard Gibbs Medal, Society's Chicago Section; William H. Nichols Medal, Society's New York Section.

William Hart Patterson, 62, general service manager, Westinghouse Electric Elevator Co., Jersey City. He pioneered in high speed electric elevator development and elevator automatic control perfection.

MILWAUKEE, WIS.

NATIONAL TERMINALS CORPORATION

954 SO. WATER STREET, MILWAUKEE 4

Tel. Mitchell 5644

Milwaukee's most modern and best located Waterfront Warehouse. Automobile storage. Warehousing on unit basis for spot stocks. Storage "in transit". Pool car distribution, Customs Bonded. Member of A. W. A. & W. W. A.

MILWAUKEE, WIS.

"Milwaukee's Finest"

National Warehouse Corporation

— STATE BONDED —



EVERY CONCEIVABLE
WAREHOUSE & DISTRIBUTION SERVICE AFFORDED
A.D.T. Service

468 E. Bruce St., Milwaukee 4
C. & N.W.R.R. Siding



MILWAUKEE, WIS.

—Phone Marquette 7091

TERMINAL STORAGE CO.

100-112 W. Seboth St.

Milwaukee 4, Wisconsin

Cooler, Freezer and General Merchandising Storage
Deep Water Dock, Private Siding
on C.M.S.P. & P. R.R.

TORONTO, ONT.

M. A. RAWLINSON, Pres. & Gen. Mgr.

M. RAWLINSON, Ltd.

Established 1885 610 Yonge St., Toronto 5, Can.

Seven Buildings to Meet All Requirements for Modern Storage and Distribution

Customs Bonded. Pool Car Distribution. Household Goods Moved. Packed, Shipped and Stored.

Members of CanWA—NFWA—BAIFR—FWRA—TC&W—ALLIED VAN LINES

TORONTO, ONTARIO

TERMINAL WAREHOUSES LIMITED

Located on Toronto's Harbour Front in the heart of Industrial Ontario

COMPLETE MODERN STORAGE AND
DISTRIBUTION FACILITIES

Dry Storage Cold Storage Bonded Storage
Office and Light Manufacturing Space Lowest Insurance
Field Warehousing

MONTRÉAL, QUE.

ST. LAWRENCE WAREHOUSE INC.

1-VAN HORNE AVENUE, MONTREAL, CANADA
200,000 SQ. FT. OF MODERN FIREPROOF SPACE
LOCATED IN THE EXACT CENTER OF THE CITY
OF MONTREAL

Canadian Customs Board. Private Siding—8 Car Capacity—Free Switching—All Railroad Connections

New York Representative: Frank J. Tully
277 Broadway, New York 7.

Phone Worth 2-9438

MONTRÉAL, QUEBEC

Westmount Transfer & Storage Ltd.

205 Olivier Ave., Westmount, P. Q.

LOCAL AND LONG DISTANCE MOVERS

Private Room System for Storage

CRATING, PACKING and SHIPPING

Charges Collected and Promptly Remitted

Member: N. F. W. A., Can. W. A.

Established 1903

W. G. KENWOOD,

Pres. & Gen. Mgr.



For Shippers' Convenience, States, Cities and Firms are Arranged Alphabetically

D and W, December, 1944—113



*The two greatest names in furniture protection
for more than a quarter of a century.*

DREADNAUGHT and SUPER DREADNAUGHT FURNITURE PADS

Write for quotations on available furniture pads in stock

NEW HAVEN QUILT & PAD CO.
82 FRANKLIN ST., NEW HAVEN 11, CONN.

ELECTRIC PROTECTION against FIRE • BURGLARY • HOLDUP

Aero Automatic Fire Alarm

•
Sprinkler Supervisory and
Waterflow Alarm Service

•
Watchman Supervisory and
Manual Fire Alarm Service

•
Burglar Alarm—Holdup Alarm



Controlled Companies of

AMERICAN DISTRICT TELEGRAPH CO.

155 Sixth Avenue New York, N. Y.

Central Station Offices in all principal cities

INDEX TO GENERAL ADVERTISERS

Public warehouse advertisements start on page 68 and are arranged alphabetically by states, cities and firms.

A

Air Transport Assn. of America..... 53
American Airlines, Inc..... 35
American District Telegraph Co..... 114

B

Baker-Raulang Company..... 1
Bearse Manufacturing Co..... 59
Braniff Airways, Inc..... 11

C

Case Co., J. I..... 10
Curtiss-Wright Corp..... Second Cover

D

Darnell Corporation, Ltd..... 55
Dillner Transfer Co., W. J..... Front Cover

E

Edison Stge. Battery Div. Thomas A. Edison, Inc. 55
Electric Storage Battery Co..... 41

F

Farquhar Co., A. B..... 56
Filter Paper Co. (Equip. Div.)..... 56
Flexrock Company..... 58
Fruehauf Trailer Co..... 12

G

General Detroit Corp..... 7
Gerstenslager Company..... 43
Globe Company..... 39

H

Haiiss Mfg. Co., George.....
Harborside Whse. Co., Inc..... Back Cover
Hebard & Co., W. F..... 60
Herman Body Company..... 5
Highway Trailer Co..... 17
Hyster Company..... 18

I

International Harvester Co., Inc..... 53

J

Jaeger Machine Company..... 57

L

Lockheed Aircraft Corp..... 27 to 30

M

Manhattan Stge. & Whse. Co..... 8
Marsh Stencil Machine Co..... 59
Mather Mfg. Company..... 4
Mercer-Robinson Co., Inc..... 57
Meyercord Company..... 6
Mining Safety Device Co..... 58

N

New Haven Quilt & Pad Co..... 114
Nutting Truck & Caster Co..... 61

O

Orangeville Mfg. Co..... 58

P

Philco Corp. Stge. Battery Div..... 47 to 50

R

Ready Power Company..... Third Cover
Revolator Company..... 58

S

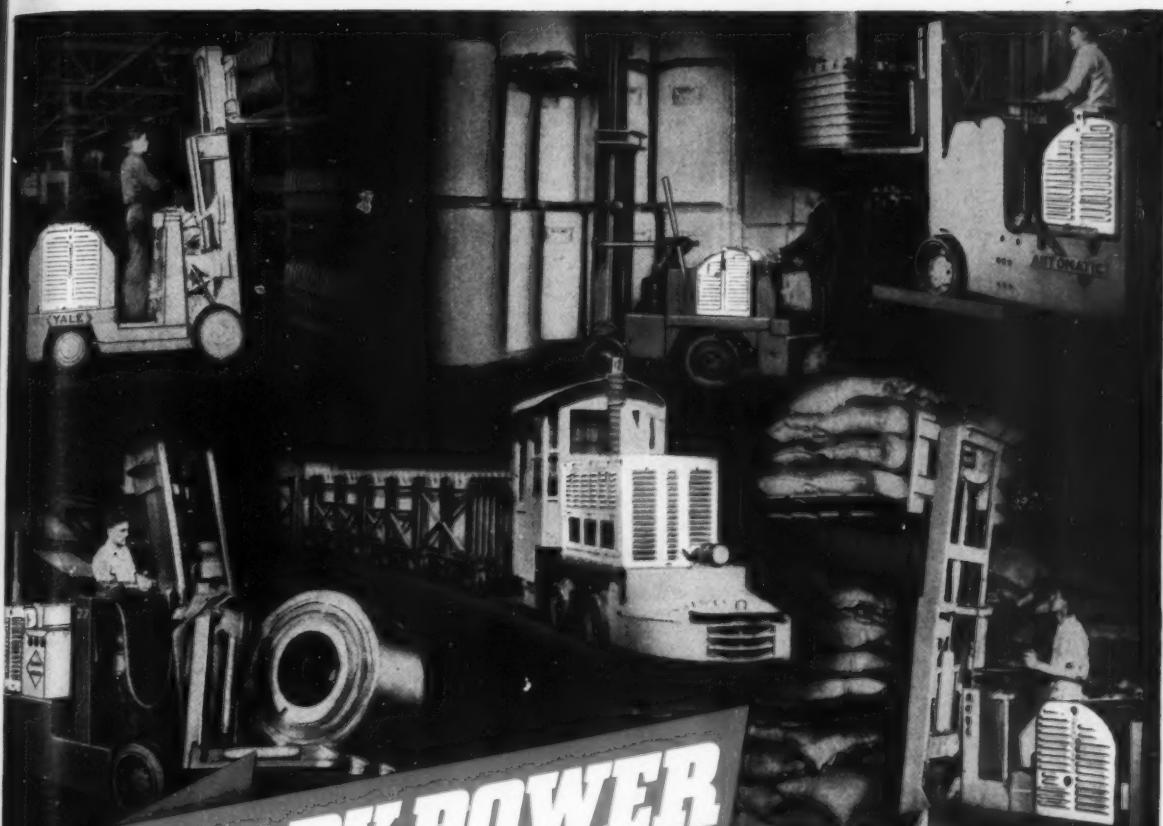
Sabin Machine Company..... 60
Sedgwick Machine Works..... 59
Southwestern Freight Lines..... 53
Studebaker Corporation..... 2

T

Thomas Truck & Caster Co..... 61

W

West Bend Equipment Corp..... 60
White Motor Co..... 9



READY-POWER

for ELECTRIC INDUSTRIAL TRUCKS

...READY-POWER
is LIVE POWER—

generated as needed directly on the truck chassis (not stored and limited in amount) was made available by us in 1924, for the users of electric industrial trucks. Through this source of power (Ready-Power), the electric industrial truck is pre-eminent today as the most efficient, long-lived, most flexible material handling tool available to industry.

Write for Bulletin 99



THE READY-POWER CO.

2049 GRAND RIVER AVE.
DETROIT 3, MICHIGAN



DISTRICT OFFICES:

BIRMINGHAM • BOSTON • CHICAGO • LOS ANGELES • NEW YORK • PITTSBURGH
PHILADELPHIA • SEATTLE • WASHINGTON, D.C. • TORONTO, CANADA



The Faith of Sixty Generations

With the pattern of final victory taking form, we may venture the hope that this will be the last war-time Christmas . . . that men of good-will will soon prevail, as it is ordained they shall.

Those who are fighting our battles overseas have first claim upon our prayers and

services, as 1944 draws to a close. To them, and to our friends and patrons everywhere, we extend sincere holiday greetings.

May 1945 see the return of a chastened world to the ways of peace . . . the peace of justice, good-will, and understanding, among all men.



*Photo by Fairchild
Aerial Surveys, Inc.*

HARBORSIDE
WAREHOUSE COMPANY, INC.

R. B. M. BUPKE, Vice-President
34 EXCHANGE PLACE, JERSEY CITY
Executive Office: 66 HUDSON ST., NEW YORK

6050 2771

